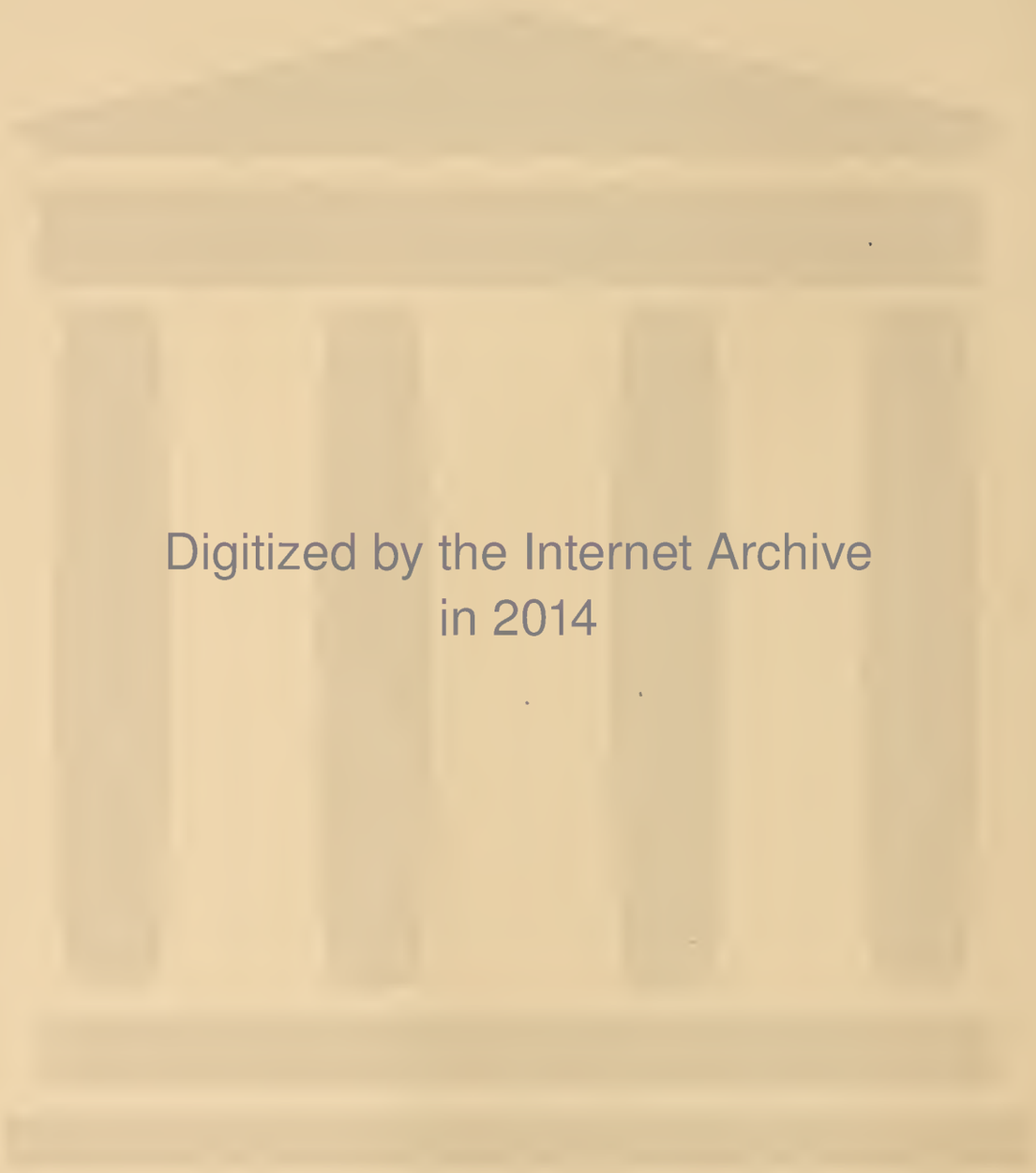


THE JOURNAL OF

OPHTHALMOLOGY

OTOLOGY AND LARYNGOLOGY.

ISSUED BI-MONTHLY

JOHN L. MOFFAT, M. D., EDITOR.

ASSOCIATE EDITOR:

A. WORRALL PALMER, M. D.

VOLUME XIV, 1902

A. L. CHATTERTON & CO.,

156 FIFTH AVENUE,

NEW YORK.

VOL. XIV. JANUARY, 1902. No. 1.

THE JOURNAL OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

EDITOR,
JOHN L. MOFFAT, M. D.

ASSOCIATE EDITOR,
A. W. PALMER, M. D.

A YEAR has passed. The changes we inaugurated last January have justified themselves, and the new policy, to judge by numerous letters received and our increased subscription list, is an assured success.

Friendly criticism and suggestions are invited, as we are constantly striving to make the JOURNAL better and to keep close in touch with our readers. Short, practical, original articles will always be welcomed, and published as promptly as possible, such as, while intelligible and of interest to the general practitioner, are addressed especially to the exclusivist and the specialist.

In the coming year even more attention will be given to the symposia—that popular department to which prominent specialists contribute tersely their practice and experience in questions of interest.

A new feature will be editorials, giving the JOURNAL more personality and interest than can be expected from the critical blue pencil without them.

The places of Drs. Gennerich and Wood will be taken by Drs. F. E. Rabe and E. Rodney Fiske, who will be, respectively, our German and French collaborators.

The indefatigable Dr. Reynolds would fill all our pages —if we would let him—in the effort to make the bibliography complete, but, valuable as that would be, it is of course impracticable. It has been found necessary to limit this department to a select list of periodicals and their

original articles which further the development of the four ologies to which we are devoted.

GENERAL ANÆSTHESIA FOR THE ADENOIDS OPERATION.

IN our symposium this month those who advocate general anæsthesia seem to have the best of the argument. It may be well to state that the predilections of those invited were not considered when the list was made.

Timidity which prevents resort to a general anæsthetic, dwells unduly upon the exceptional death, practically ignoring the five thousand successful anæsthetizations. The danger of anæsthesia lies principally in the method of its administration. Fortunately the profession is awakening to the importance of this, and each year skilled anæsthetists are more readily to be had.

Patients, especially children, have rights which but too many surgeons are apt to slight. The shock incident to this operation in its brutal form is a serious thing to any child—and the conscious operation at its best is brutal in comparison with that under an anæsthetic.

A model case happened within the writer's knowledge: a typical adenoid boy "went to sleep" one day when the family doctor was at the house, never saw the specialist nor heard of his connection with the case, awoke peacefully with no shock nor pain, and a few days later asked when his operation was to be; in three weeks or so, as is not uncommon, he developed from a spindling, pale weakling to a rosy, rugged, robust boy. Per contra—a little girl of nervous temperament was operated "successfully" without anæsthesia; the surgeon, a lover of children, gentle and successful with them, being satisfied with the operation and its result. The child had a relapse about a year later and, according to the mother, had not then gotten over the shock; the parents would not hear of another operation without general anæsthesia.

Then again, it is no light thing to betray the confidence of a child; the effect upon the little one is apt to color its whole after-life—such experiences are never forgotten—and upon the surgeon is incalculable. About thirty years ago a doctor betrayed the confidence of a boy (brutally breaking open a boil on the wrist), and to this day is execrated whenever and wherever that man can find occasion to speak of him.

This is not "a simple operation," especially on a struggling child.

In children operated without general anæsthesia the probabilities are that the site of this operation is not treated anti- or a-septically, and such irrigation as might be attempted would hardly be effectual. Does not the necessity for haste lead many men to neglect this who in their other operations pay due regard to antisepsis?

Bichloride is too poisonous for use here, even 1:5000, when we have in formaldehyde a safe and more efficient germicide.

If really expert, one should be able to operate with either hand, and to remove post-nasal adenoids while the anæsthetized patient lies prone with the face over the edge of the table.

Oxygenated chloroform is by all odds the best anæsthetic, the only objection being its expense and cumbersomeness. Pure oxygen is at hand for emergency, but the color, pulse, and respiration hold good; there is no depression, and usually no nausea.

CORRECTION.

SOULÉ. Among our professional cards the old address of Dr. Isaac C. Soulé has been printed. We call attention to the fact that the doctor has been in Kansas City, Mo., for three years—1103 Main Street. He has the chair of Ear, Nose, and Throat Diseases in the Kansas City Homœopathic Medical College.

MASTOIDITIS.*

EDWARD J. BERNSTEIN, M. D.

Baltimore, Md.

HITHERTO it has been the custom to think of inflammations of the mastoid and the tympanic cavity as two separate entities. It is my belief that this is based on a misconception of the normal and pathological histology of these structures. This I hope to make clear before I finish. Mastoiditis occurs as acute and chronic; these are again subdivided into primary and secondary.

"Primary acute inflammation is quite rare, and is usually the result of injury, exposure to severe cold, or may occur in the course of syphilis; it is open to question, however, whether even in these cases some preliminary inflammation has not preceded. Occasionally it seems to follow an otitis externa circumscripta or diffusa, but here the progress of events is much the same as in the so-called primary disease; viz., a superficial circumscribed periostitis, with death of the underlying cortical substance and of the contiguous cell walls, the limitation of this being accompanied by a circumjacent engorgement and swelling of the mucous membrane similar to that occurring on a larger scale in the mastoid cells in profound inflammation of the drum cavity. Secondary inflammation occurs through the antrum as a consequence of one of three conditions: First, an acute congestion, generally in its incipiency a vasomotor neurosis; second, an acute catarrhal inflammation originat-

* Read before the Maryland Laryngological Association, and the fall meeting of the Maryland Medical and Surgical Faculty at Elkton, Md.

ing with a disturbance in the naso-pharyngeal mucous membrane and extending progressively, often rapidly; third, and this, possibly, the most prolific source, as a sequence of chronic suppurative disease of the drum cavity, sometimes of long standing and with or without already established necrotic process therein.

"The cases coming under the first head are less frequent than the second; they usually have a history of preceding over-tire, of depression following exhaustion, or, in the event of their being of local reflex origin, of severe exposure." (Blake, in "Burnett's System.")

The disease occurs with a sudden and unexpected onset of pain, and rapidly increases in severity. It is not confined to the middle ear, but radiates forward and upward; and, in the event of profound mastoid complication, backward; in addition to the continuous and more bearable pain, it emphasizes the location and character of the disturbance by occasional severe paroxysms. These symptoms will be clear when you recall the fact that the mucous membrane in the tympanic cavity is not smoothly applied, but in the upper part and below the aditus it lies in folds. These are variously placed, some running horizontally (obstructing the drainage of the aditus), some vertically or irregularly disposed about the stapes or fenestra cochlearis; this is of clinical importance in obstructing the motility of these parts. The third set are those of striæ and reduplications, principally in the neighborhood of the antrum.

Aside from the obstruction to free drainage in the upper portion of the tympanum, the reduplications of the mucous membrane of the first sort may be considered as playing an important rôle in the ætiology of those diseases of the tympanic attic, the majority of which start with a suspension of vasomotor inhibition in that region. Taking into consideration the reduplication of the mucous membrane, we can readily see that the secreting and vascular surface of the tympanic cavity may be easily doubled or trebled by their presence—a condition which serves to account for the rapid development of congestive

disorders in this place, and for the often excessive and copious serous exudate, without calling into question any contribution from the antrum. Consider also that the blood supply of this region, coming, as it does, partly from branches directly from the carotid, affords an opportunity for sudden engorgement of the mucous membrane and submucous tissue; in the event of suspension of vasomotor inhibition of general or local reflex origin. We

Tympanic cavity, aditus ad antrum, antrum and mastoid cells. Vertical section—segment poster-internal to the section. Enlarged 5 diameters.

should bear in mind that the aditus is subject to anomalies of caliber and direction, and that it has the well-known tendency to excessive engorgement and swelling of the mucous membrane of the antrum and aditus, as distinct from that of the rest of the middle ear. This fact is of paramount significance not only in the suppurative inflammations, but also in the acute congestions of the tympanum of reflex origin,—exposure to cold, etc.,—and is of clinical importance in the therapy.

Second. In those acute catarrhal inflammations, no matter what the general cause may have been, its local exhibition is, first, usually in a portion of the mucous tract remote from the middle ear, generally from the naso-pharynx, through the medium of the Eustachian tube. In those cases the primary congestive stage is of short duration and is accompanied or followed rapidly by considerable swelling of the mucous membrane and by increased activity of the secreting glands. The pain is less sudden here in its onset and less severe in its paroxysms than in the acute congestion of the vasomotor type; the appearance of the ear also indicates a difference in condition characterized by a more generally diffused congestion at the inner end of the canal and of the tympanum. The nervous system is less profoundly affected, the progress of the trouble to the mastoid is slower and more progressive. The swelling of the mucous membrane in the attic is nature's effort to protect that cavity from implication in the disease of the tympanic cavity, often enough unavailing. The disease of the mastoid cells, starting as an inflammation of the lining membrane of the drum cavity, and antrum, varies greatly in different cases as to its rate of progress and the direction in which it shall make itself manifest externally; these differences depending on the structure of the bone forming the mastoid walls and cells and the degree of implication of the bone in the inflammatory process. The whole course of a case, beginning with the onset of the acute tympanic cavity disease and terminating in an operative opening of the mastoid cells for the release of pus or the removal of necrotic bone, may extend over a few days, or the acute condition may subside by reason of a perforation of the drum (artificially or spontaneously made). These most frequently heal, or there may remain behind for weeks such symptoms only of a sense of fullness in the ear; or it may assume this phase—occasional pain referred to the mastoid or vertex, hyperpyrexia, or slight tenderness over the mastoid. Unless the true state of affairs is here recognized and recourse to surgical relief had, at the end

of an indefinite period a fluctuating swelling over the mastoid, its tip, or in the digastric fossa, tells of the release of pent-up pus. As a result of the slowly progressive inflammation in the mastoid cells two conditions may result: a limited necrosis, or, when the inflammation has subsided without such, a thickening of the bone with gradual obliteration of the mastoid cells—a process of hyperostosis. This condition occurs most frequently in the third category of mastoid complications as a result of chronic suppuration; this sclerosing of the mastoid, by the way, usually occurs when the just-mentioned condition occurs before the end of the third decade, and explains the relative immunity from mastoid disease in this class of cases. Acute mastoid complication in connection with chronic suppuration of the drum cavity is most likely to come as an acute exacerbation. Being confronted with a case of acute mastoiditis,—and by this I mean such a symptom complex calling attention to the pent-up pus in this region,—the question presents itself: Have we an empyema of the pneumatic cells capable of resorption, or have we already necrosis? The later the drum is opened the more likely are we to have necrosis. Körner says, "If in a case of profuse suppuration there is not a decided decrease of the discharge in four weeks, he invariably found the bone involved."

As to the diagnostic value of "percussion of the mastoid" to determine whether the pneumatic cells are still sound, Körner lays some importance, but in the *Monatsch. für Ohrenheilk.* of November, 1900, Jürgens has shown, upon section of *twenty-four cadavers*, its *utter unreliability.*

Temperature usually subsides after paracentesis of the drum, except in children, and if no complication occurs only moderate increase of the evening temperature is seen. In the bone complicating cases the general condition of the patient, instead of rapidly improving, as it does in the benign cases, indicates the serious trouble: the face is pale, the tongue coated, the appetite gone, and emaciation begins. It must be remembered, however, that the *most*

serious implication of the bone may take place in influenza and diabetic mastoiditis without any external manifestations, pressure, sensitiveness, or swelling.

It is presumed that the surgeon has a good-sized opening in the drum, either artificially or spontaneously produced; and that he has tried palliative remedies unavailingly; the question of opening the mastoid presents itself. Just here let me speak a most emphatic word in favor of Leiter's coil. I am well aware that it has been condemned by some very able men who claim that it masks the very symptoms which would otherwise have called our attention to gravity at hand. It may mask the pain, but the high temperature and general nervous depression continue in those cases in which it does no good.

Its good is not to abort a mastoiditis; that, I think, is based upon an entirely wrong interpretation of the histological and pathological anatomy of the parts. The usefulness of the Leiter's coil is *simply to reduce the swelling and congestion of the mucous membrane in the attic*, so that the purely mechanical function of drainage from the mastoid cells into the drum cavity will be restored. When this fails, then it is that the cold application has been useless; but no harm is done by waiting thirty-six to forty-eight hours under ordinary circumstances. The symptoms always give enough evidence for the resort to surgery.

The indications for the operative opening of the mastoid are indicated in acute primary or secondary inflammation of the process when the pain and fever do not abate in a few days,—at most eight days,—in spite of palliative measures indicated above. Schwartze, in giving this indication, bewails his inability to positively declare when to operate in those cases of necrosis which run their course without local pain, œdema, or fever.

In certain cases it borders on the impossible to decide when to make an exploratory incision; the notice to this is taken when an acute suppurative middle-ear process continues beyond its ordinary duration of four to seven weeks, in spite of proper local treatment and the failure of constitu-

tional anomalies to account for the obstinacy of the suppuration. The opening is especially to be made when certain gastric disturbances, such as loss of appetite, heavily coated tongue, and constipation exist. These symptoms often point to extra-dural abscess.

While the simple opening of the mastoid antrum—by this is meant the Schwartze operation—is indicated in the acute cases, the radical operation (that of Zaufal-Körner, for the eradication of diseased structures, not for simple drainage as in Schwartze) is the operation done by most men of experience to-day in the following class of cases:

First, in chronic inflammation of the mastoid with repeated swelling of the superimposed tissue, which may occasionally disappear in those complicated by abscess over the process, *especially* if a fistulous tract exist to the skin in the side of the neck, the external auditory canal, or towards the pharynx; even though there be no direct symptoms of threatened danger to life.

Second. If the otoscope shows an implication of the attic (through fistulæ in the upper posterior periphery of the drum membrane), especially urgent are those cases of choleastomatous formation.

Third. Schwartze's indications for the radical operation especially include all cases of chronic suppuration of the middle ear *without any indication*, *externally*, of mastoid complication as soon as symptoms seem possible which threaten life through retention of pus or the production of choleastoma.

Fourth. As a prophylactic measure to prevent fatal complications in all intractable middle-ear suppurations (cases which resist *thorough* treatment from four to six months), even with no evidence externally of the changes in the mastoid, or in those in which we have no evidence of pus retention (fever, pain), as soon as otoscopic examination shows that excessive flow of pus comes mainly from beyond the tympanic cavity. The contra-indications are: First, in very young children, thanks to the great natural

tendency of the child's organization to spontaneous expulsion of diseased tissue,—which clinical evidence upholds,—simple opening of the mastoid suffices. We are especially warned against too radical or destructive operations in childhood. One must bear in mind that at birth the mastoid cells do not exist, and that they are only gradually developed, so that by the end of the third year the mastoid approaches the full-grown condition. Furthermore, the general contra-indications to any important surgical procedure. The appearance of diffuse suppurative leptomeningitis is, according to our present knowledge, a decided contra-indication, though Jansen of Berlin has even operated in these cases. Quinckes' lumbar puncture enables us to make the diagnosis of this complication quite early.

Körner performs the radical operation as soon as the diagnosis of chronic bone disease is established. If this is uncertain, then the following *demand the "radical"*:

First. As soon as symptoms of pus retention appear consecutive to chronic middle-ear suppuration, which do not yield promptly to treatment.

Second. In hyperostosis of the auditory canal, because it prevents a full view of the deeper parts and interferes with the treatment of the suppuration.

Third. The beginning of conditions which favor intra-cranial complications, such as labyrinth or facial canal involvement in the necrotic process.

Fourth. At the first sign of intra-cranial complication. If none of the conditions here enumerated exist, and a diagnosis of mastoid necrosis is not *positive*, then he thinks an *operation uncalled for*. "I might say," he adds, "I have never encountered a case in my own experience, nor can I find any record of such, where a simple *unobstructed muco-purulent* discharge from the antrum ever led to intra-cranial complication." He therefore warns against unnecessarily doing the radical operation, as nothing so much serves to bring discredit upon the operation and may thus do more harm than good.

We should first try the removal of the necrosed ossicles through the auditory canal. He subscribes to Schwartze's fifth indication "as a prophylaxis to prevent fatal consequences in incurable fœtid discharges *without inflammatory symptoms of the mastoid* and without *any* signs of pus retention, as soon as full otoscopic examination shows that the suppuration is not confined to the drum cavity."

This means incurable suppuration, which takes for granted that every known means has been exhausted—such as removal of diseased tissue, regular and thorough cleaning, etc.

In these cases you may rest assured that it is not a simple, chronic, fœtid, intractable, middle-ear process, but that the bone is involved and most often cholesteatomata have formed in the antrum and mastoid. Here, then, we must perform the radical operation, and the term "prophylaxis" is unnecessary and conducive to error.

The radical operation of Körner (which is identical with that of Zaufal, except for the triangular skin flap of the latter) has the following advantages: first, we readily find a small antrum, even under the greatest difficulties—sclerosed mastoid—without endangering the labyrinth or facial canal; second, we can easily reach the deepest and smallest pus cavity even where we are cramped for room (where the sinus sigmoidalis is pushed far forward) in the sclerosed mastoids; third, we are thus enabled to properly view every step of the operation, and so detect and freely clean out every pocket in the bone; fourth, by this operation we fashion the opening so that we keep the cavity free during the entire process of healing, and thus avoid relapses: or if there should be any tendency to such, it may be known at the earliest possible moment. Neither the method of Schwartze, Stacke, Zaufal, or Körner is suitable for every case, and the slavish following of any one for every case is certainly not good surgery.

As to the ultimate results of the radical operation, we may take the statistics of the clinic at Halle as an example. Of two hundred cases, the otorrhœa was perma-

nently cured in 74.2 per cent.; Stacke had 94 per cent. As regards the 5.9 per cent. fatality in the Halle clinic, the post-mortems showed, except in one case, that death could not be attributed to the operation, but rather to the fact that intra-cranial complications were present at the time of the operation. Jansen told me last summer that he had no more bad results, and that he did not know what it was to have a death from the radical mastoid in the past few years.

The results upon hearing are equally brilliant. Schwartze's conclusions are as follows: "At all events the possibility of very marked improvement in hearing is not excluded, and on the other hand a slight *reduction* of hearing in individual cases, with retention still of good function, must not be denied." Stacke says: of his 100 cases, hearing remained the same in 49, was improved in 31, and in 6 was made worse; while in 14 no record is given. Grunert reports of his 71 cases, in which hearing was accurately measured before operation, 55 per cent. improvement, 39 per cent. no change, 6 per cent. were made worse. He concludes: (1) in cases of intact labyrinth, one may await an improvement from this operation, provided the deafness was, in a measure, considerable before the operation; (2) in these cases it is exceptional for the hearing to remain the same, or to be made worse; (3) in those cases in which the functional tests before the operation show that the normal integrity remains, it is the rule that the operation does not affect hearing; (4) in a number of cases which belong to this category, a very perceptible increase of hearing acuity was, indeed, noted: (5) the occurrence here also of a decrease in function happens at times." *

In referring to the operative technique he writes: "There is one thing which it seems to me *cannot be too strongly condemned*, that is, the closing of the external wound after the Schwartze (simple) operation by the *bloodclot*. Schwartze is especially strong in deprecating any primary closure of the retro-auricular wound when the operation shows any

* Grunert in Blau's "Encyclopedia der Ohrenheilkunde."

pre-existing infection, because the most careful cleaning of the field never leaves one the assurance that all diseased tissue has been removed, and it fails because the blood coagulum, remaining behind, soon becomes infected. Only when the opening of the mastoid has partaken of the character of an exploratory incision and the result has been a negative one can one be safe." I was glad to find that this advice has been prominently brought to the attention of the American profession by Dr. Dench at the meeting in St. Paul.*

It were idle to attempt to so describe Körner's method that from it one could straightway follow it out in practice. I must again quote from him in reference to this: "Whoever would attempt an important operation simply from a book description must make fatal errors; one should have had the personal direction in the beginning of one who has done the work."

However, the salient points are these: the incision is the usual semicircular one, made close to the auricle and down to the bone; the periosteum is elevated and the auricle drawn, not too forcibly, forward; the posterior wall of the canal is freed of the soft parts. Whether the sterno-cleido mastoid should be freed from the tip is determined only during the course of the operation, and depends on the condition and kind of cells in the mastoid. Having laid bare the field of operation, we carefully note the landmarks—auditory canal, linea temporalis, and the fossa mastoidea (this latter usually marks the site of the antrum). When the bone looks normal it is chiseled off layer by layer, and the deeper we go the broader the artificial canal is made; above, even a portion of the linea temporalis may be taken off, remembering that in brachycephalic skulls the middle fossa (consequently the dura mater and brain) lies down lower, and the sigmoid sinus farther forward, than in the dolichocephalic.

The deeper down we go into the canal the more we confine ourselves to the upper and posterior wall. This has

* Jour. A. M. A., July 27, 1901, p. 254.

two advantages: we thus avoid the facial nerve, and it is the easiest way to reach the antrum, which we strike before coming to the external wall of the attic. The nerve is a few mm. external to the tympanum, and passes through the postero-inferior wall. As soon as the attic is opened this opening is enlarged by removal of its whole external wall, so as to have no bone overhanging it. Take off all bone even with the tegmen tympani; with the Jansen forceps remove the last portion of the posterior wall of the auditory canal. If in chiseling down one has reached the level of the drum and has not struck the antrum, one concludes that it is either abnormally placed or we have to do with a very small antrum. It is then advisable to finish the operation according to Stacke's method—the great advantage of which is that one can surely and without danger absolutely find the smallest antrum. Every particle of diseased structure is now thoroughly curetted away, and the field of operation flushed with normal salt solution. It is not necessary to remove the outer wall of the deeper-lying bottom of the tympanic cavity, as Jansen advocates; neither Körner nor Stacke finds it necessary. One should remove the hammer and anvil, if they have not already been lost, but carefully avoid injury to the stapes. Here one completes the operation by sewing up the external wound, having first filled out the opening with the flap from the posterior wall, according to Körner or Zaufal. Drainage takes place through the enlarged natural canal, so this direction is not contrary to the dictum of Schwartze, above quoted. The first dressing is left on from four to six days, unless especially contra-indicated.

For a fuller description the reader is referred to Körner's book. In conclusion, let me again remind you:

(1) That in acute middle-ear inflammations the pathological changes are nearly always spread over the entire mucous membrane. Politzer and Bruhl, even in those cases where no symptoms of mastoid irritation could be made out, found pus in the antrum and mastoid cells on the post-mortem table.

(2) That, with this knowledge and the recognition of the normal histology, it seems incredible to even talk of "aborting" a mastoiditis, or that there is not a decided place for the application of the cold coil.

(3) That the radical operation of Körner is a conservative measure both as to life and to hearing.

(4) That the closing up of the external wound after the simple (Schwartze) by the blood-clot method is unwise and unscientific, and therefore unwarranted.

800 Madison Avenue.

Bibliography.

Politzer, "Lehrbuch der Ohrenheilkunde."
Luc, "Leçons sur les Suppurations de l'Oreille Moyenne."
Urbantschisch, "Lehrbuch der Ohrenheilkunde."
Blau, "Encyclopedia der Ohrenheilkunde."
Transactions, Otological Section, A. M. A., 1901.
Körner, "Die Eitrigen Erkrangungen des Schläfenbeins."
Burnett's "System of Diseases of Throat and Ear."

THE TREATMENT OF EPISTAXIS.*

ORRIN LEROY SMITH, M. D.,

Chicago.

NOSEBLEED occurs as a physiological process, as a symptom, and as a disease. Hence it becomes necessary to ascertain with some certainty the variety under treatment, if anything like uniformly satisfactory results are to be secured.

Occasionally a young, plethoric patient will have quite a profuse nasal hæmorrhage without ascertainable cause, with evident relief and no untoward results, which case of course needs no care. Another type in whom the let-alone treatment is highly advisable is the high-living, full-blooded patient with arterial sclerosis, in whom nosebleed arrests apoplexy. Mechanical measures may stop a vicarious menstrual epistaxis, but extremely unpleasant results usually follow, while the administration of some such remedy as bryonia, pulsatilla, or trillin yields much more satisfactory results. The hæmorrhage from a fractured nose usually ceases when once the parts are replaced in normal apposition.

Since nine-tenths of all nasal hæmorrhages have a local and anterior origin, the locus Kiesselbachii (that point on the septum upon which the finger impinges when casually introduced) the clamping of the nose, the coin or paper beneath the upper lip, the application of heat or cold to the nose, a cold key or caseknife to the back of the neck, the local use of cobweb, vinegar, or lemon juice within the nose by the patient, usually prove efficacious.

Upon arriving the doctor generally finds the patient bent

* Read before the Illionis Hom. Assn., June, 1901.

forward over a pail or cuspidor, the worst possible position he could assume. Direct him to stand erect, loosen the collar and waistband and elevate arms above the head, which procedure will often stop the flow. If it continues, place yourself opposite the patient, and with the index finger of each hand press vigorously against the upper lip and the alveolus at the margin of the wings of the nose, at the same time compressing the septum. In other words clamp the nose while pressing downward and backward, releasing the pressure slowly and gradually, once the hæmorrhage has stopped.

Personally, we are opposed to the use of severe astringents or styptics as unnecessary in the first place, and as productive of much inflammation, pain, and in some cases sloughing, in the second place. Probably the least harmful and most successful astringent has been antipyrin, which may be insufflated or dusted over the gauze strip or used in solution. Cocain in solution has been used somewhat, but there is, and always will be, great danger from its toxic properties. The great superiority of *adrenalin chloride* over antipyrin and cocain has in modern quarters retired the latter two agents entirely. However, even with this powerful hæmostatic, a secondary hæmorrhage occasionally occurs some hours after; hence it is always safer also to pack the nose. Not infrequently one encounters a severely active hæmorrhage, that so rapidly dilutes and washes away any medicament as to make it almost valueless.

The text-books are prone to laud the efficiency of cauterizing the bleeding points, but our own clinical observation and experience are entirely against this procedure.

The customary method of "poking in pledgets of absorbent cotton is of about as much practical utility as pounding sand in a rat-hole." In the first place absorbent cotton increases the hæmorrhage by capillary attraction. In the second place the nasal cavity is of pyramidal shape, larger and more oval posteriorly, with a floor sloping backward, therefore a pledget of cotton introduced at the level of the middle meatus—as it usually is—soon becomes

soaked, drops to the floor of the nose, gravitates backward, and leaves the bleeding point again exposed. The only reason cotton ever stops a hæmorrhage is because it has been powdered with or immersed in an astringent, or, while momentarily in place, arrests the flow for the few minutes necessary for a clot formation within the bleeding vessel. This offers an explanation as to why the hæmorrhage treated by the cotton method stops and starts, compelling the use of many pledgets. Rarely is there any count kept, and it not infrequently happens that a pledget remains to be removed later, but after having subjected the patient to a nasty nasal discharge for years.

We have found the following method satisfactory and successful, we believe because it meets the anatomical requirements.

Mount on a substantial probe or dressing forceps a strip of heavy antiseptic gauze or sterile old linen an inch wide, and fifteen inches long; carry back about two inches and press down solidly on the nasal floor a fold of the cloth strip; upon this pyramid place another fold, repeating until the nasal cavity is compactly filled. When you come to remove the packing twenty-four hours later,—certainly not later than forty-eight hours—it unfolds with comparative ease and without the uncertainty of remnants remaining in the nares, possibly causing sepsis. If done thoroughly it will not often be necessary to plug the nose posteriorly, a process that is not infrequently productive of sphenoidal abscess, otitis media, septic meningitis, etc.

In a small percentage of cases the hæmorrhage will still persist despite any and all of these measures. We recall the case of an old lady who had cancer of the liver, in whom a successful tamponing of the nose resulted in a hæmorrhage from the ears and throat.

The following case, seen in consultation, may offer some suggestions as to the treatment of those extreme cases dependent upon such constitutional conditions as typhoid fever, pneumonia, or renal, cardiac, or hepatic diseases.

The patient was a girl of sixteen years, entering the third

week of typhoid, whose nose had been bleeding for twenty-four hours despite many and varied measures, with the result that she was unconscious, pulseless at the wrist, and almost exsanguinated. Normal salt enemata were given, hot milk administered, hot-water bottles disposed about the body, the shoulders elevated, ligatures thrown about the thighs, and the nose repacked with gauze soaked in castor oil, with the result that the hæmorrhage ceased.

In constitutional cases the internal remedy is of the greatest value. In cases of hæmophilia either phosphorus, nitric acid, or hamamelis is pretty sure to be indicated. In patients suffering from cardiac derangements such remedies as cactus, crotalus, strophanthus, or strychnia will be indicated. Patients whose hæmorrhages depend upon liver derangements will be relieved by nux vom., hamamelis, or ipecac. The nosebleeds of scrofulous children are controlled with cyanide of mercury. Millefolium is to be administered when recurring hæmorrhages are dependent upon sexual abuses. In our experience no remedy equals china for post-hæmorrhagic symptoms.

The cessation of the hæmorrhage imposes a second duty, too often neglected, that of preventing a recurrence. If of general origin, the hæmophilic tendency must be cared for or the heart assisted, the liver corrected, the hæmorrhoids treated, etc.

The most frequent local causes are septal ulcerations or septal spurs, which, if uncared for, are sure to produce another hæmorrhage.

Excepting its infrequent physiological occurrence, nosebleed always means local or general disease, and this safety-valve symptom of warning ought to be lifted from its present undiscovered isolation and given a place commensurate with its clinical significance and importance.

31 Washington Street.

[The editor would like to emphasize the closing paragraph of the foregoing and from his personal experience with the drug supplement the instructive therapy above by the recommendation of thlaspi bursa pastoris θ in five-drop doses for epistaxis in hæmophiliacs.—A. W. P.]

STENOPAIC METHOD OF DETERMINING THE INTERAXIAL DISTANCE.

WARREN UEL REYNOLDS, M. D., O. ET A. C.,

Manhattan Borough, New York City.

THE use of the stenopaic slit and hole accompanying every trial case affords a simple means of ascertaining this important measurement in fitting lenses in conditions of orthophoria.

The slit is placed vertically over one eye and the hole over the other eye in the adjustable trial frame, which is then to be adjusted until the patient sees the slit appear to pass through the hole while he looks through them at a cloud on the sky, or a distant object for distant vision glasses, or at an object on a white page for near vision glasses. Cover or close each eye in turn, to be sure it is looking through the slit or hole.

The difference between these two measurements is about three-eighths of an inch.*

The height of centers above the nose bridge is obtained by using the slit horizontally, and adjusting to comfortable vision. Slits in disks of very thin metal, that can be slipped between or in front of lenses, are to be preferred.

The distance indicated on the adjustable frame index is the amount of separation the optical centers of the spectacle lenses should have.

In measuring cases of horizontal heterophoria for distance, a vertical diplopia must be produced by a prism or a Maddox rod, and the adjustment made until the deviation

*I have found it quite uniformly 2 mm.—J. L. M.

disappears, in consequence of the decentering of the correcting lenses, which here do the work of prisms.

The slit and hole are not required in heterophoria.

In measuring for near vision in horizontal heterophoria, a prism is used to produce a vertical diplopia, and the patient looks at a vertical line drawn from top to bottom of a card and having a dot on the center of the line. Two lines, each having a dot, appear. Adjust the frame until the two lines merge and but a single line with two dots upon it is seen. The dot is needed to prove binocular vision.

320 Manhattan Ave.

BLINDNESS FROM BABIES' SORE EYES.*

THOMAS MILTON STEWART, M. D., CINCINNATI, O.,

Professor of Ophthalmology in Pulte Medical College, Cincinnati, O.

THIS subject continues to be of interest and importance, because many practitioners never see the unhappy results from neglected cases of purulent conjunctivitis of the newborn. It is impossible for them to credit fully the statements regarding the dangerous nature of the disease, and therefore they cannot fully appreciate the pleadings of the specialists for more care in the methods of preventing the disease and for greater heed in the treatment of the developed case.

At least one-third of all cases of blindness in blind asylums owe their unhappy lot to this dread disease. A minimum estimate of the loss to the community in wages which the blind would otherwise earn in the United States alone is over sixteen million dollars. For the support of these unfortunates, millions of dollars must be raised by tax, one-third of which amount is unnecessary, because this proportion of the cases is due to a preventable disease.

Some years ago, in addressing a body of medical men who had just finished the reading of papers and the discussion of "Tuberculosis as a Preventable Disease," King Edward VII. of England said, "Then why is not the disease prevented?"

In many States we have legislation upon the prevention of babies' sore eyes. Much has been written, and still the

*Prepared for the meeting of the Southern Association of Homœopathy, Atlanta, Ga., October 22 and 23, 1901.

disease goes on. It is true cases are often reported from the practice of midwives, or several days after the disease has manifested itself. There are a sufficient number of cases, however, occurring in the practice of qualified physicians, so that we should exercise more care as physicians in order to lead the way for others.

What, therefore, should we do with regard to babies' sore eyes? First, prevent the occurrence of them. How?

(*a*) In every case of abnormal vaginal discharge antiseptic douches are indicated.

(*b*) Every newborn babe should have the toilet of the hands made with sterile water and towels, which of course means that this water and towel have not been used for any other purpose whatever, and the water is in a receptacle that is also sterile.

(*c*) The toilet of the eyes should be also made with sterile water and sterile towels, and vessels containing the water must be sterile.

(*d*) In all suspicious cases two drops of a two per cent. solution of nitrate of silver should be dropped into the eyes. The lids should be separated and the drops gently let fall onto the eyeball. We have never known a case where this treatment has caused any trouble. It is the well-known Crédé method, and its value in the prevention of purulent conjunctivitis is undoubted; it has reduced the number of cases from ten per cent. to less than two-tenths of one per cent.

(*e*) As a prophylactic, protargol in twenty per cent. solution is useful.

This brings us to the treatment of a developed case of purulent inflammation of the eyes of the newborn. What are we to do?

First, warn all attendants of the danger to their own eyes, as well as speak of the danger to the sight of the patient. I have seen an attendant lose both eyes, not having been warned of the danger, and yet the patient made a perfect recovery.

Secondly, order the following:

(*a*) Saturated solution of boric acid for frequent cleansing.

(*b*) Tannic acid, fifteen grains to glycerin one ounce.

(*c*) Sulphate of atropin; one-half grain in half ounce of a saturated solution of boric acid.

(*d*) Nitrate of silver; four grains to an ounce of distilled water.

(*e*) One ounce of white vaseline, in which ten grains of boric acid have been incorporated. This protects the skin of the face and lids from irritation from frequent bathing, and keeps the eyelids from adhering.

(*f*) One-fourth of a pound of absorbent cotton.

(*g*) Normal salt solution.

(*h*) Formol*; 1 : 4000 solution.

(*i*) For each bottle of drops an eye-dropper is ordered. Bottles and droppers are distinguished by the use of colored string or ribbon tied to each.

For convenience it is well to number the bottles and refer to them in written directions according to the numbers placed upon them, and the following directions are given.

First. Bathe the eyes well with boric-acid solution every hour.

Second. Three times a day, and once in the night, two or three drops of the glycerin and tannin are to be used. I have found the glycerin and tannin to assist in the cleansing of the discharges of the retro-tarsal folds. This preparation should be used after the eyes have been washed with the boric acid, and the boric acid should follow its use.

Third. A drop of atropin solution is to be placed in the eye night and morning, from the beginning; if corneal ulceration appears at the edge of the cornea, or much away from its center, one-fourth grain of eserin to an ounce of water is instilled twice daily.

Fourth. Four times a day the nitrate of silver is used

* Formalin and forty per cent. solution of formaldehyde are practically the same thing.—Ed.

after the use of the glycerin preparation, and the lids well manipulated to bring it into the retro-tarsal fold; after using the silver solution the eyes are flushed with normal salt solution and the lids covered with ointment.

Fifth. All cotton used in cleansing the eye must be burned immediately after its use. I have found cold applications of much service when there is considerable œdema of the lids. When they are used small compresses (four thicknesses of cloth about an inch and a half square) are placed on a block of ice, and are applied to the lids frequently in order to keep the temperature within the lid stroma reduced, and thus to inhibit bacterial growth. We must remember that retained secretions in the retro-tarsal fold and in the stroma of the lids, with a more than blood temperature, amount to an excellent culture medium and culture tube. The least haziness of the cornea is a warning to remove the cold and to apply dry heat.

If ulceration of the cornea supervenes, then the formol solution is used four times daily.

This is not all of the treatment by any means. The general condition of the patient has as much to do with success or failure as the local treatment. Thin or badly nourished children give us much anxiety. The general health of the patient must be inquired into, and any departure from the normal should receive careful attention. The badly nourished and thin children will be much benefited by two daily rubs with warm cotton-seed or olive oil. If their food disagrees with them, for many such are bottle-fed babies, proper dietetic regulations, such as a general physician is already familiar with, need to be instituted.

The internal remedy, given upon its indications, will hasten a cure of the case. The following are very often indicated:

Argentum nitricum, 3x or 200th.—Withered, dried-up children. Old-looking babies. Swelling of the lids, due to retained secretions in the cul de sac, not to infiltration of the lid (as in rhus and apis). Profuse purulent discharge.

Mercurius solubilis.—Profuse purulent discharge which is thin and excoriating.

Euphrasia.—Has the same indications as mercurius, except that the discharge is thicker.

Pulsatilla.—Profuse, thick, white bland discharge.

Hepar.—Ulcer of the cornea.

Conium.—Superficial ulcers of the cornea.

Arsenicum.—Corneal ulcers in weak and anæmic children.

Aurum, baryta iod., and *calcarea iod.*—Ulcers of the cornea with glandular enlargements.

704 Elm Street.

MYDRIATICS.*

	ATROPIN.	SCOPOLAMIN.
Solutions commonly used	Atropin sulphate ½ to 2%. Most commonly 1%.	Scopolamin hydrobromate $\frac{1}{10}$ to ¼%. (According to some it is identical with hyoscin.)
Effect on pupil	Almost maximum mydriasis; light reaction lost; increased by cocain.	Same as atropin.
Effect on accommodation	Complete cycloplegia; begins later than mydriasis.	Same as atropin.
Action—		
begins in	10 to 15 minutes.	7 to 10 minutes.
reaches maximum in	15 to 20 minutes.	25 minutes.
lasts from	6 to 10 days.	4 to 7 days.
Effect on tension	Doubtful in normal eyes; increases tension in eyes predisposed to glaucoma.	Doubtful; tension not increased, according to Raehlmann [and Deady].
Remarks	Atropin has *disadvantages:* (*a*) Absorption through lachrymal passages, causing poisonous symptoms (dryness and redness of throat and face, faintness, staggering, delirium). (*b*) Atropin infiltration, redness and swelling of eyelids and cheek. (*c*) Follicular conjunctivitis from frequent application. On account of its strong and lasting action, it is the *best* mydriatic for protracted use, as in iritis.	Scopolamin is five times as powerful as atropin, but its effect is of shorter duration. In ¼% solution it is not more poisonous than atropin, and less so than duboisin. It is better borne by the conjunctiva than atropin. It should therefore be used: (*a*) Where atropin is not strong enough to break down posterior synechiæ. (*b*) Where atropin infiltration occurs.

* These tables are republished from the seventh edition of Swanzey's "Diseases of the Ear," by permission of the publishers, P. Blakiston's Son & Co.

MYDRIATICS—*Continued.*

HOMATROPIN.	EPHEDRIN.	MYDRIN.	EUPHTHALMIN.
Homatropin hydrobromate 1%.	10 per cent.	A mixture of homatropin and ephidrin. Homatropin ..... 0.01 Ephidrin ..... 1. Water ..... 10.	Euphthalmin hydrochlorate 5%.
Good mydriasis, but less than atropin.	Good mydriasis; light reaction retained.	Mydriasis greater than either constituent; light reaction feeble.	Maximum mydriasis; light reaction lost.
Marked, but not complete, cycloplegia.	Little or no effect.	None.	Less than homatropin.
12 to 15 minutes. 40 minutes. 12 to 24 hours.	8½ minutes. 30 to 60 minutes. 5 to 20 hours.	8½ minutes. 30 to 40 minutes. 4 to 6 hours.	10 to 15 minutes. 60 to 80 minutes. 5 to 7 hours.
Not so liable to raise tension as atropin.	Little or none.		None.
Homatropin is less powerful and less poisonous than atropin. On account of its action on accommodation, and the short duration of its effect, it is the best mydriatic for estimating errors of refraction. Its effect is increased by the addition of cocain.	It does not act quickly enough for ophthalmoscopic diagnosis, and is more useful when combined with homatropin.	The mydriasis being greater and of shorter duration than with either constituent, and having no action on the accommodation, it is well suited for ophthalmoscopic diagnosis.	Although a little slower than homatropin, it is as good a mydriatic, but has the advantage of acting on the accommodation only in a slight degree, and its effects pass off much more quickly. It is also more powerful than mydrin, and therefore the best mydriatic for ophthalmoscopic diagnosis. It has no irritant nor toxic effects, and does not injure the corneal epithelium.

Daturin is the same as atropin.

Hyoscyamin and *Duboisin* are very active poisons, and not to be recommended.

Cocain, employed alone, is not a very useful mydriatic, but it facilitates absorption and increases the effect of other mydriatics.

Holocain acts in the same way, but without affecting the cornea or circulation, as cocain.

TABLE II.—MYOTICS. (Pupil contractors.)

	ESERIN SULPHATE.	PILOCARPIN HYDROCHLORATE.	ARECOLIN HYDROBROMATE.
Strength of solution commonly used	½ to 1% (the former less irritating).	1 to 5 per cent.	1 per cent.
Effect on pupil	Strong contraction of sphincter pupillæ, reducing pupil to pinhole size.	Same as eserin, but weaker.	The same as eserin.
Effect on accommodation	Spasm of ciliary muscle, adapting eye for near point.	The same properties as eserin, but weaker.	The same as eserin.
Action— begins in reaches maximum in lasts from	 1 to 1½ minutes. 30 to 40 minutes. 24 to 36 hours.	The same as eserin.	It acts more quickly and more powerfully than eserin, but its effects pass off very rapidly (1½ hours.)
Effect on tension	It reduces the tension in glaucomatous conditions.	The same as eserin.	The same as eserin.
Remarks	When instilled into the eye it at first causes twitching of the lids and sometimes severe supraorbital pain, due to ciliary spasm. Is chiefly used to reduce abnormally high tension. Also used in peripheral corneal ulcers and after cataract extraction to prevent prolapse of the iris. In some eyes, especially if hyperæmic, it is liable to cause slight iritis. The fresh solution is white; it soon becomes red [Rubeserin] without, however, losing its efficacy.		

TABLE III.—LOCAL ANÆSTHETICS USED IN OPHTHALMOLOGY.

	COCAIN HYDROCHLORATE.	TROPA-COCAIN.	EUCAIN *β*.	HOLOCAIN.
1. Strength of solution in use	2 to 4 per cent.	3% (in 0.6% NaCl to prevent irritation.)	2 per cent.	1%.
2. Anæsthesia begins in	2 to 3 minutes.	½ to 2 minutes.	2 to 5 minutes.	½ to 1 minute.
3. Effect on pupil and accommodation	Transient mydriasis and cycloplegia.	None.	None.	None.
4. Effect on cornea	Tends to produce dryness and exfoliation of epithelium.	None.	Same as cocain, but in a less degree.	Same as cocain in a slight degree.
5. Effect on intraocular tension	In normal eyes sometimes lowers tension, but raises it in eyes predisposed to glaucoma.	None.	None.	None.
6. Other effects	Causes slight smarting, followed by anæmia and cold sensation, and occasionally marked retraction of lids.	Slight burning; no anæmia.	Smarts more than cocain, and causes hyperæmia. (Eucain *α* is too irritating for use.)	Slight smarting and slight hyperæmia.
7. Remarks	Some disadvantages: Does not act so well in inflamed eyes. Its effects 3, 4, and 5 are undesirable. Instillations rarely cause toxic symptoms, but they may occur after subconjunctival injection of even three-quarters of a grain. It is stated that cocain decomposes on boiling, but we have repeatedly sterilized the same solution without any marked diminution in its action. It seems, however, to make the solution more irritating.	Acts more rapidly and more powerfully than cocain; is very stable, and only half as poisonous.	Less poisonous and more stable than cocain, but is more irritating, especially in inflamed eyes.	More powerful and efficient than the other anæsthetics. Can be sterilized without decomposition. Is an antiseptic. It should *not* be used for subconjunctival injection or for the lachrymal passages, as it is more poisonous than cocain, resembling strychnia in its action.

Holocain, as shown above, is the best local anæsthetic for all purposes except subconjunctival injection and treatment of the lachrymal passages. Some surgeons have derived benefit from it in the treatment of corneal ulcers, because of its antiseptic properties.

Acoin, eucain *α*, and strophanthin are inferior or too irritating.

THE TREATMENT OF OZÆNA.

GEO. F. BAGBY, M. D.,

Richmond, Va.

TOO many papers read before societies are only quotations; we can expect to get as much benefit out of them by staying at home and delving into the pages of the originals, and at much less expense. To the mind of the writer such productions balk the very object of organization, and not only reflect no credit upon, but rather bring into contempt, the society which fills its Transactions with other men's ideas. I do not propose in this paper to enter into a scientific discussion of the difference between ozæna and atrophic rhinitis, or as to whether or not ozæna is a bacterial disease, etc.; but in a simple way shall endeavor to give the methods I have employed in the treatment of these very vexing cases. And I may say, just here, that the results of my work would not justify the unfavorable prognoses of our different authors.

In the treatment of ozæna, as in all diseases of the body, the physician should have some well-defined object to attain, and then map out a clear-cut plan in order to accomplish it by the safest, easiest, and quickest line of treatment. The object to be sought for in dealing with ozæna is threefold, viz.: *First*, to remove the odor; *second*, to stop the destruction of tissue; *third*, to restore the lost vitality to the tissues.

The first thing I do in these cases is to thoroughly examine the nose, pharynx, and larynx, to ascertain the extent of this wasting process. The necessity for this is self-

evident. In some cases, even after many years, the disease will be confined to the mucous membrane and submucous tissue of the nose, while others of much shorter standing will show this condition extending to the tissues of the pharynx, larynx, and tubes, and involving the cartilaginous and osseous structures. We can then readily see that to treat only in part must result in miserable failure and a bad reputation—the tissue must be reached in all its length, breadth, and depth. If a single patch is left, no matter how small, the disease will soon spread again over the same field, and "the last state of that nose will be worse than the first."

The examination completed, we are ready for treatment. This naturally divides itself into local and general. I would not rely upon the one to the exclusion of the other, as I regard them as equally important in bringing about the objects mentioned above. The local measures are: first, cleansing; second, stimulating; third, soothing.

Cleansing must be gentle, yet quite as thorough as we can make it. All the scales and shreds of mucus are removed, care being taken not to neglect the smallest space. There are many agents on the market for this purpose, all of which are more or less useful. Glycothymoline has served me well. I do not use peroxid of hydrogen as much as some of my more experienced confrères, as I do not consider it helpful to the mucous membranes. The best way to use such agents is a disputed point, and nearly every specialist has his own pet method. Personally, I prefer the cotton swab, which is passed, after being soaked in the solution, well over the diseased portions. This is followed by a spray. After the crusts are thus softened they can be removed without using force. After this is accomplished, the nose and throat are examined again to see that no hardened crusts and shreds of mucus are left.

Stimulating.—The next step in our treatment is to stimulate the tissue, and thus push nature to her very best efforts. This may best be accomplished by massage

and the use of some astringent. Shirley of Detroit claims much for galvanism; I have had no experience with it. There are several methods used in massaging here. Some operators prefer the electric motor, while others work by hand. The treatment employed by some consists in making rapid, light strokes over the diseased area with a ball-tipped instrument, and the results claimed by those using this seem to indicate that it merits a place among the local measures for relieving ozæna.

The method which has served me so well for several years is as follows:

A small pledget of cotton is soaked in a ten per cent. solution of cocain and passed well into the nostril and over the rest of the involved portion; a stiff cotton carrier is then wrapped with absorbent cotton, which has been previously dusted with boric acid, and with this all the parts which can be reached are given a quick, gentle rubbing, lasting from six to ten minutes, according to the toleration of the patient. This produces slight oozing of serum and blood. Drying this off quickly, an application of nitrate of silver, ten grains to the ounce, is made, until there is a slight whitening of the membrane. This leaves the parts in quite an irritated condition, and so we are naturally led up to the third part in our local treatment.

Soothing or *Healing*.—This I regard as quite essential. I use a vapor of some one of the Globe Manufacturing Company's solutions from their universal vaporizer for two to ten minutes each time, and the office treatment is finished.

There are few patients who feel that they can afford to visit a rhinologist every day, so we must supplement what is done in the office by a home treatment. I am accustomed to advise the douche, cautioning my patient as to the danger of ear troubles, and instructing him accordingly. Atomizers have proven very unsatisfactory, even when used intelligently (and this is the exception), so I have practically given them up. The sniffing method I regard as the most dangerous one employed for cleansing.

In one of the largest throat hospitals of London, however, this was the only method I ever saw used; the patient was given the prescription, with the directions to sniff a quantity of it from the hand two or three times daily. After a thorough douching my patient is directed to blow the nose and thus remove as much of the dead mucus as possible. This is followed by a vapor of some oily solution. Every third day the patient is seen in the office and given the treatment outlined above.

The treatment described here is, of course, for simple, uncomplicated cases of ozæna. Where the accessory sinuses are found discharging pus a free outlet should be given, and the sinus carefully washed and dusted with some antiseptic powder. Other complications must be dealt with according to the requirements of each case.

General treatment.—Upon this, as well as upon the local work, depends much for our patient. The diet must be wholesome and nutritious, and yet digestible. Eight hours' sleep, plenty of fresh air, and proper exercise are quite essential. A cold dip, sponge or shower bath, taken preferably before breakfast, and followed by a good brisk rubbing with a Turkish towel, has been helpful. Any irregularity of stomach, bowels, or kidneys must receive attention. In other words, each case is a case unto itself and must be so considered.

The remedy will usually be found among the following, according to its indications, viz., alumina, arg. nit., ars. iod., nit. ac., aur. met., calc. iod., hep. sulph., kali iod., mercurius, silicea, and sulphur.

Care should be taken here just as if we depended upon the remedy alone for a cure.

Case I.—Miss Ida K., a typewriter, aged twenty-six, weight 110 pounds, brown hair and eyes. The patient, sent me by a colleague March 24, 1899, for a difficulty of hearing, complained that she had been gradually growing deaf for a year. Her throat was very dry, and there was a constant desire to clear it. Would frequently get up crusts from the throat and nose, which

were very foul. She had been at different times under the care of two prominent specialists, but steadily grew worse. The ears felt stopped. There were tinnitus aurium and slight pains in the left ear. The m.t. was thickened, opaque, and very much retracted. Hearing was reduced to watch A. D., 2 inches, A. S. contact. The mucous membrane lining the nose and pharynx was atrophied and looked dry and glazed, with scales formed in places. Both Eustachian tubes were closed by adhesions. Her general health was very poor, scarcely any of the organs performing its work normally. I began the treatment as outlined above, supplementing it with the use of the bougie and catheter. Treatment was given every second day. My surprise was not little when, after six weeks, I noticed some improvement in hearing. She could then hear my watch A. D. 4 inches, A. S. 1½ inches. The improvement from this time was steady, both as to hearing and the appearance of the mucous membrane, which looks healthy, so that now she hears my watch A. D. 2 feet, A. S. 18 inches, and ordinary conversation so well that one could hardly detect that her hearing was not normal. The remedies which have proved of more service in this case are kali bi., aur. met., and silicea. Her general health is better than it has been for years.

Case II.—Mr. J. B., real estate agent, age twenty-eight, consulted me February, 1900. Both nostrils nearly occluded by dry hard crusts ; foul breath ; dilated nostrils; pinched expression of face. He had just returned from Asheville, N. C., where he had been sent by his allopathic physician to die with consumption. Patient had syphilis about four or five years previous to this, and had been cured (?) by mercury. The lungs were found clear, and there were no signs of tuberculosis that I could detect. The first cleansing brought away perfect casts of the nostrils, formed of hardened mucus and crusts. There was bleeding after the removal. Patient said he often blew these out. The treatment outlined above was heroically given every other day for two months, with aur. met. internally, at which time patient was ordered to report every third day for the next two months, then every sixth day for the next three months, when he was discharged practically cured. Since that time he has been to see me for a threatened return. One or two treat-

ments is all that is necessary. During the seven months of treatment he gained twenty pounds and said that he never felt as well in his life.

Case III.—Was called to see R. D., a porter, April 10, 1901, and found him in bed. He could not breathe through nose; high temperature. Family doctor (allopathic) could give no hopes of his recovery. Examination gave specific history. Right nostril completely occluded by scabs, left nearly so. The odor was something terrible. Could only make casual examination. Cleansed the nostril, ordered the spray, gave internal remedy, kali iod. 1 x, and instructed patient to call at my office as soon as possible, sending for me in two days if he could not come. On the second day he came in. A thorough examination revealed a sunken bridge of the nose, crusts forming casts of nostrils. These removed, the septum was found perforated in two places, one anterior and one posterior; I could have put my forefinger through either opening. Kept the patient on kali iod., and followed the treatment as outlined in the paper, with the result that he was discharged on June 24 as cured. The septum, of course, was perforated, but the destructive process was checked by the first two or three treatments, and the tissues soon assumed a healthy appearance.

206 East Grace Street.

SYMPOSIUM.

General Anæsthesia for Post-nasal Adenoid Operation.

Irving Townsend : In operating for removal of adenoids and tonsils general anæsthesia is nearly always advisable in children and very often in adult patients. After excluding organic disease of the heart, lungs, and kidneys (which, if present, would often determine the choice of an anæsthetic), my preference for the various anæsthetics now used may be stated as follows, in the order given :

(1) Nitrous oxide and ether, combined. The Bennett inhaler, in the hands of an anæsthetist familiar with its use, gives the best results; (2) ether, alone; or, (3) chloroform followed by ether; (4) chloroform; (5) Schleich's anæsthetic (mixture made at the time), administered by one who is experienced in its use, has been very satisfactory, and under suitable conditions is entitled to high rank as a brief anæsthetic.

The selection of an anæsthetic involves consideration for the safety of the patient as well as the reputation of the surgeon; hence the latter must employ an anæsthetic that is well and favorably known to the profession and the public, unless he is willing to risk censure should a death occur while giving a preparation less generally approved, or which is still in the experimental stage. I formerly used chloroform in most cases, and still believe it to be equally as safe as ether (which in these cases is often taken badly); and but for the reports of several deaths, when operating under chloroform, during the past two or three years, would have continued to use it in preference to ether. Nitrous oxide *alone* is not satisfactory, but combined with ether meets every requirement of an ideal anæsthetic.

Seth Scott Bishop: I always employ the bromide of ethyl for general anæsthesia in operating for adenoid vegetations in the vault of the pharynx, because :

(*a*) The laryngeal reflex very probably persists, and any blood or tissue entering the larynx is promptly expelled.

(*b*) The sitting posture of the patient, possible in the use of this anæsthetic, is the most convenient one for operating on adenoid growths and tonsils (it is often necessary to combine the two operations), and it renders easy the passage of blood outward from the nose and mouth. Generally, but little is swallowed.

(*c*) Nausea and vomiting are infrequent, and the patient is little, if any, disturbed after the operation.

(*d*) Ethyl-bromide is probably as safe as any general anæsthetic. We have used it in many hundred cases without a serious accident.

John J. Kyle: To operate on children without a general anæsthetic is to invite great injury to the normal mucous membrane of the throat and post-nasal space through the struggling of the patient.

Haste in operating is essential, yet we must make haste slowly.

I rely upon ethyl-bromide in tonsillotomy and the removal of post-nasal adenoids. The anæsthetic effect lasts for one-quarter of a minute, the child quickly regaining his mental equilibrium. The child is first examined for any contra-indication for a general anæsthetic, as in anæmics, chlorotics, etc. A rubber sheet is wrapped about the patient to prevent struggling, it is then placed in a sitting position upon the nurse's lap, mouth gag is inserted, and one ounce of the anæsthetic is poured upon a napkin and administered until sufficient anæsthesia is produced.

Before proceeding to a general anæsthetic the nose and throat and post-nasal space have as far as possible been irrigated with a solution of bichloride of mercury 1:5000, to which is added a small amount of salt solution to prevent irritation of the mucous membrane.

M. A. Barndt: I prefer to use general anæsthetics because I can do better and more thorough work, and the shock to the general system is less. In some cases that require but a little operation, I use ethyl-bromide with good success.

Thomas L. Shearer: When the degree of hypertrophy of adenoid tissue is comparatively slight, and enlarged faucial tonsils

require ablation, nitrous oxide gas is sufficient, provided, of course, that the operator is quick, skillful, and deft at his work. This anæsthetic is in daily use in the London throat clinics, and certainly has proved itself very satisfactory. When, however, an anæsthetic is needed for slower, more deliberate operating, as in cases presenting extensive hypertrophy of adenoid tissue in the vault, it becomes a question of selecting chloroform or ether. It is now well understood that patients exhibiting hypertrophy of lymphoid tissue (the lymphatic temperament) do not bear surgical shock at all well. Chloroform is a depressant; operations on the tissue of the vault always produce shock—in varying proportions according to the vigor (and frequency) with which instruments are used; in many cases evidences of shock are scarcely perceptible, in others profound. If the child is frightened and struggling, it is possible, even with the utmost care in administering chloroform, to crowd the anæsthetic, and shut out the necessary amount of air required for safety.

General anæsthesia undoubtedly increases the danger of adenoid operations. For these reasons, if an anæsthetic is imperative, I prefer and invariably use ether in my cases, as I consider it far less dangerous in such patients. The effect of ether is more stimulating than chloroform. In a large proportion of cases general anæsthesia is necessary, as operating without it is rarely satisfactory in a struggling, frightened child. Certainly a second sitting is not easily obtained.

J. E. Sheppard: I always use ether for the post-nasal adenoid operation. My custom is to give ether up to the point of abolition of the corneal reflex, then remove the cone, and perform the operation with the patient lying on the right side. In this way the operation can be done without pain, and the laryngeal reflex is re-established before any blood can reach that point.

J. Ivimey Dowling : I believe general anæsthesia absolutely necessary to a thorough radical removal of adenoids, for then it is possible to operate carefully and more at leisure. Without an anæsthetic an instrument is difficult to pass, because of spasm of the palate, and if successfully introduced the child's struggles prohibit further operative procedure at that time or any other. Those who win the confidence of a child—and then betray it—can perform the operation without general anæsthesia, but those

cases frequently come to subsequent operation for a "return of adenoids," and while I do not believe a secondary growth impossible, still I am firmly convinced that after a thorough and radical removal, such returns are rare.

It is difficult to administer a general anæsthetic to one afflicted with adenoids and only a skilled anæsthetist should be permitted to administer it. In all cases heart stimulants should be at hand, and a good tongue forceps ready for any emergency.

If any bronchial irritation exists the operation should be postponed, or if absolutely necessary to do it, chloroform should be given.

A final point is that the patient should be completely relaxed, and no operation should be attempted under primary anæsthesia.

DUNBAR ROY: Experience has taught me that, if you desire to perform a thorough operation in the removal of adenoids, it is much better to do it, with all patients up to the age of nine, under general anæsthesia. After this age one can usually get enough control of the patient to do the operation under cocain, even if it takes several sittings. Without anæsthesia the method of holding the child, using the curette and blood flowing over everybody, has always been to me an inhuman procedure. Such an operation I do not think can ever be thorough, if for no reason than that the involuntary and voluntary contraction of the muscles of the soft palate will prevent the proper manipulation of the instruments.

My own experience with adenoid removals has been so satisfactory under chloroform anæsthesia, that I would hesitate to use any other. I have never had any alarming immediate or secondary hæmorrhage, and this I attribute largely to the fact of my using forceps for the removal of the bulk of the growth and the curette only at the end of the operation. I sometimes use the Gottstein curette alone without general anæsthesia, but only in those cases where the amount of adenoids is small and the parents seriously object to the use of a general anæsthetic. For general anæsthesia I always use chloroform.

I operate with the child on its back, considering the celerity of the operator the chief preventive to the blood going into the larynx. The child is turned quickly on its abdomen, and with its head drawn over the end of the table. While in this position,

the mouth gag being still in place, I make a thorough digital examination of the naso-pharynx, and if found necessary the forceps and curette are used again.

Clarence R. Dufour : In children, both private and hospital cases, I use chloroform. I have found that they take it well, it acts quickly, requires but a small quantity, and does not tend to cause inflammatory conditions of the respiratory organs. Without an anæsthetic the terror inspired, the struggles, etc., prevent the operation being done with precision, while the gasping for breath, after a long cry, is liable to draw a quantity of blood into the larynx and produce severe strangulation, which I have seen, and which came near being fatal. I bring my patient to the point just short of complete anæsthesia, maintaining him in that condition during the few minutes required to perform the operation by administering the anæsthetic through the nostrils. I operate with the patient on his side; this position will prevent the blood flowing into the larynx; if any should do so the reflex action of the larynx, which is not abolished in incomplete anæsthesia, will cause it to be coughed out.

Wm. R. King : My rule is to use general anæsthesia, and nearly always chloroform. The usual cases presenting are of course children, and it is in my experience difficult to control them with a local anæsthetic. I have had no accidents, no serious difficulties, no trouble from chloroform that was not promptly and easily remedied, and no serious or alarming hæmorrhage. Children take chloroform very well, and as the operation should not be a lengthy one, I can see no objection to it.

James A. Spalding : This is imperatively demanded in order to obtain a good result. Lautenbach's method of using a finger nail is excellent, I have employed it in one or two instances. But willing patients are but few, and patients submitting to a repetition are rarer still. I think that more operations with the overhanging head, as suggested by Ruhloff, should be tried before its advantages can be fairly demonstrated. I am of the opinion, further, that a great many operators are too brutal in their adenoid operations, and that conservatism should be employed. It is a wonder to me how some patients, brutally operated upon as I have seen, ever have any mucosa left for life. If the mucosa has a function, that cannot possibly be accom-

plished after being plowed into permanent ridges, as is the result of operations that I have witnessed.

JOHN R. WINLSOW: I employ anæsthesia in adenoid operations only in selected cases, or when compelled to do so by parents, after an explanation of the additional risk of anæsthesia in these lymphoid cases. I never use chloroform, but prefer ethyl-bromide, or ether.

Having had one death, and knowing of four or five other cases, under anæsthesia preliminary to tonsillotomy and adenectomy, before any operation was performed, I must concede an unusual danger to anæsthesia in these conditions.

The majority of reported deaths have occurred under chloroform, therefore I consider it unjustifiable to use it in these conditions. I have administered ethyl-bromide in over one hundred cases without a bad symptom. I do not consider it possible to do an absolutely thorough operation without anæsthesia, but I prefer the risk of recurrence to the possible death of a patient in an otherwise simple operation.

WM. L. BALLENGER: During the past eight years I have resorted to general anæsthesia about fifty times. I use it when for any reason I cannot readily get the consent of the patient or parents to do the operation without it. I have used chloroform in a few cases, but have usually depended upon ethyl-bromide. This has proven most satisfactory, as it can be administered to the patient in the sitting posture, and the anæsthesia lasts long enough to complete the operation. More recently I have used nitrous oxide gas administered by a dentist of vast experience, and the result is gratifying. I find this anæsthesia quite long enough to remove adenoids. I use general anæsthesia to please the patients or friends, and to prevent shock and pain incident to the operation. My reason for usually not resorting to general anæsthesia is that it is the chief element of danger in connection with the operation. The death rate under chloroform and bromide of ethyl anæsthesia is near one to five thousand. The mortality under the A. C. E. mixture is perhaps even higher, while under ether it is considerably lower. Nitrous oxide gas is much safer than either of the foregoing, and will be used by me in future when practicable. I hesitate to give any general anæsthetic for so simple and speedy an operation on account of

thereby subjecting the patient to danger of death in order to avoid a few moments' pain and discomfort. I might remark that another reason for hesitating to administer general anæsthetics in the adenoid operation is that they are more dangerous where there is obstruction in the upper respiratory tract.

GEORGE B. HOPE: If the operation for the removal of naso-pharyngeal adenoids can be made thoroughly, speedily, and with only a moderate degree of pain, the employment of a general anæsthetic is clearly not indicated. It is believed that, under ordinary circumstances, with the Gottstein curette these results may be secured without difficulty. The class of cases excepted would include adenoids of unusual and extended formation and patients of a hyper-excitability, and of an age and strength where violent struggling is difficult to control. The disadvantages of the general anæsthetic lie in the danger attending all forms of narcosis—the more prolonged operation incident, the larger hæmorrhage, the vomiting and subsequent disability, together with the necessity of providing a time and surroundings fit for its proper management.

S. B. ST. JOHN: I usually employ general anæsthesia in order to have a more complete and satisfactory removal.

SAYER HASBROUCK: I believe in general anæsthesia, because I believe that a most thorough operation should be done in all cases. Also because I do not wish to punish my patients, who are usually young. Possibly an exception might be made in adults, where a local anæsthetic will be sufficient.

JOHN C. LESTER: General anæsthesia, in my judgment, is absolutely essential in almost every post-nasal adenoid operation. Primarily to prevent shock; secondarily, to make it possible to do a thorough operation; and, lastly, because it is absolutely free from untoward results.

WM. WOODBURN: I seldom use a general anæsthetic in this operation, for the simple reason that I do not regard it as at all necessary. My cases do not recur any more frequently than do the cases of my colleagues who use a general anæsthetic. My reasons are that the patient will as a rule resist the administration of the anæsthesia as much as he will resist the introduction of the mouth gag. The operation requires only a few

seconds, when properly done, and the pain incident is only insignificant. The hæmorrhage, which is always quite profuse, is not swallowed when the patient is conscious and sitting upright, for he will always spit it out. I only give an anæsthetic when the parents insist upon it, or when the family physician has told them in advance that it will be necessary.

SOCIETIES.

Abstracts, with discussions, of the more interesting papers presented at recent meetings.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY; 7th Annual Meeting, New York, 1901.—(Continued.)

Clinical Notes on Adrenalin, Norton L. Wilson of Elizabeth, N. J.

Dr. Wilson had suggested to Dr. Takamini the name Adrenalin for the active principle of the suprarenal gland. For the eye Dr. Wilson had used 1:10,000 and 1:5000 only, and for the throat a 1:1000 solution. One drop instilled into the eye produces a slight smarting sensation for about twenty seconds, during which time there is a notable hyperæmia of the conjunctiva. In forty seconds the entire conjunctiva, both ocular and palpebral, is blanched, and this anæmia lasts for about one hour. These solutions had shown no special effect on the cornea or pupil, and no anæsthetic properties had manifested themselves. So far as could be observed, the sympathetic nerve was not stimulated, and the palpebral fissure remained unchanged. When used with cocain the anæsthesia produced by the latter is much deeper than it would otherwise be, probably because of the depletion of the vessels. If applied to the interior of the nose it blanches the membrane almost immediately, and in the examination of the naso-pharynx it is of great assistance because of the shrinkage of the tissues thus produced. In profuse bleeding it is of little use because it is so rapidly washed away. In acute coryza it will relieve the swelling of the turbinates almost immediately and stop the profuse watery discharge, and for temporary relief in hay fever it has no equal. In a case of acute laryngitis coming under his observation, the voice was restored in twenty-four hours and the pain very materially

lessened by five applications of the spray. In acute pharyngitis and tonsillitis the relief is immediate, and is more lasting if combined with cocain. Every operation within the nasal chambers could be made bloodless, or nearly so, by the use of adrenalin, but it must not be forgotten that in an hour or two afterward there will be some bleeding, though no more than if adrenalin had not been used. The patient should be given a solution of 1:10,000 or 1:5000, to be used at home for two days. In grip or other acute inflammations of the mucosa it was valuable in relieving the swelling, and thus draining the cavities. In operations affecting the ear his experience had been limited to the removal of polypi and granulation tissue. Adrenalin was best used in combination with cocain. He had never seen a case of cocain toxæmia when used with adrenalin. The solution can be boiled and so made sterile. He did not use it in powder form, because it was then much more irritating and caused sneezing. The best results were obtained by the absorption of the solution through the mucous membrane of the nose, and not from the stomach.

J. A. Stucky of Lexington, Ky., has used adrenalin extensively in nose and throat work since last November. He found that it did produce some anæsthesia. When used with cocain less of the latter was required, and the anæsthesia lasted longer. He had found it particularly valuable in middle-ear operations. He did not believe there was any more hæmorrhage after its use than after operations in which it was not used, except perhaps where there was a great deal of spongy tissue. He rarely used a solution stronger than one to three or five thousand ; in subacute laryngitis he employed a solution of the strength of 1:10,000. An especially useful combination is with resorcin. He has also found it a very valuable remedy to combat the shock following anæsthesia from chloroform or ether. In one case of this kind, occurring after chloroform, he had poured about half a dram of a 1:5000 solution on the tongue, and very quickly the heart action had been revived.

T. Passmore Berens of New York had been using adrenalin for about six months, and found that it kept well in his office. He had purposely left one vial uncorked for six weeks, and had found it perfectly sweet and effective at the end of that time.

It would blanch and clear up the Eustachian tube in those cases of acute middle-ear catarrh of tubal origin. It had been his practice to inject through the catheter into the tube from three to five drops of the 1:1000 solution, and then with a Politzer bag to blow further. This would keep the tube open for a sufficient length of time to give the patient a good deal of comfort by allowing drainage through the tube. He also used it hypodermically in two cutaneous operations about the face, and with good result, and also injected it beneath the mucous membrane of the cheek in opening the antrum of Highmore. Here it had answered well in preventing hemorrhage.

M. D. Lederman of New York thought the drug was especially valuable in lessening the absorption of cocain, and hence preventing the occurrence of cocain toxæmia. Such cases were not nearly so frequent since adrenalin had been in general use. In a case of nasal hydrorrhœa the local effect of the remedy had been shown when given by the stomach in conjunction with the local treatment. As it was an animal extract, he favored combining it with some cardiac stimulant to guard against the occurrence of cardiac weakness, when given internally, though it increases blood pressure.

Otto Stein of Chicago said that he had recently used this remedy in a case of antrum disease, expecting to have a bloodless field, yet he had about as much hæmorrhage with a 1:1000 solution as if he had not used it. He had employed it in another case in which he had entered the maxillary sinus, and the hæmorrhage had been just as profuse as if it had not been used. He had commonly employed adrenalin in the strength of 1:3000, though sometimes in stronger solution, and he had kept it in contact with the tissues for ten or fifteen minutes.

Talbot R. Chambers of Jersey City said that he had done the Gleason operation on the nasal septum a good many times, and had not observed the loss of over five or ten drops of blood from cutting the septum if adrenalin had been used. His method was to inject a few drops (1:1000 with five per cent. solution of cocain) underneath the mucosa, and then the syringe was withdrawn and a few more drops injected. Finally, a few drops were injected under the mucosa near the anterior nares. Just before operating some cotton with twenty per cent. cocain is

wiped over the hollow of the septum. There was no bleeding after cutting the septum under these circumstances. In one case in which he had done a secondary mastoid operation for purulent otitis media, a cholesteotoma had been found. It would have been almost impossible to have enucleated this entire without the use of the adrenalin, yet with the latter this operation had been performed with perfect success.

H. Holbrook Curtis of New York said that while he thought the discovery by Dr. W. H. Bates of the suprarenal extract ranked with that by Dr. Carl Koller of cocain, he had come to the conclusion that there were cases in which, because of idiosyncrasy, it acted very badly. He had had eight or ten cases in which there had been an absolute intolerance of adrenalin and of any of the preparations of the suprarenal gland. In one of the first of these cases a gentleman sneezed for two hours and a half after having used the suprarenal extract, and then on his return cocain had been used and had given immediate relief. The sneezing had, however, returned in the evening, and had lasted for hours. He had had hay fever patients, after using suprarenal extract for a few days, suffer from violent pain in the upper part of the nose, necessitating the discontinuance of the remedy. Last fall he had himself used the adrenalin spray for a few days, and then a terrible coryza had set in and had resulted in a genuine hay fever, which had only ceased on the discontinuance of the adrenalin. He had done over one hundred septum operations, and when used with cocain he had yet to see any untoward symptoms. He would like to know if intense pain or sneezing or violent coryza had been noted by others after the use of this substance.

Edward B. Dench of New York had not used adrenalin, but had employed suprarenal extract. In all of his cases the effect had been entirely satisfactory, as far as the control of hæmorrhage was concerned. In one case, where owing to the age of the patient he had avoided general anæsthesia, he had done an Asch operation with the aid of cocain and suprarenal extract, and there had been practically no loss of blood. This had been his experience in many other cases. In middle-ear work he had found suprarenal extract of great value. His method of using it was to saturate a small strip of gauze with the

sterilized solution of suprarenal extract, and pack this through the speculum down upon the bleeding point. If left there for about a minute and a half it would be found that the field was practically dry.

S. MacCuen Smith of Philadelphia said that he had found the drug of special value in cases in which it was used with cocain to prevent cocain poisoning. He was accustomed to apply a twenty per cent. solution of cocain, never spraying it into the nostril, but simply making a local application. Up to the the present time he had had no trouble with cocain alone.

Walter B. Johnson of Paterson said that it was important that the field be made thoroughly clean before the application of adrenalin. He could not see that there was any difference in the action of suprarenal extract and adrenalin, though on the score of convenience adrenalin was greatly to be preferred. He had not met with any idiosyncrasies, all of the cases in which he had used it having been very satisfactory. The effect of adrenalin on the lymph channels of the eye was very important.

Max A. Goldstein of St. Louis said that occasionally a very acute irritation was produced by spraying a weak solution of the drug on the mucosa. He would like to suggest to Dr. Takamini that this might be overcome by dissolving the adrenalin in an oil instead of using an aqueous vehicle. A 1:1000 solution would be found useful in cases of acute congestion of the larynx, the acute laryngitis of singers. If a solution of this strength were sprayed upon the larynx just before singing the result would be most gratifying.

L. L. Mial of New York said that he had used the suprarenal extract in the nose in two cases in which it had produced violent sneezing, which lasted ten or twelve hours. The solution of adrenalin with chloretone was distinctly anæsthetic, and did not produce this sneezing. He had used this combination in removing spurs from the septum and chalazion from the eyelids. It caused slight smarting for a few seconds, but was very soothing after the application of sulphate of copper in cases of trachoma.

M. R. Ward of Pittsburg said that he had had some adverse results, but had attributed them rather to a defective technique than to the drug. He had met some irritating effects from

the remedy, but had never seen any hæmorrhage after its use. In some plastic operations on the septum he had had some difficulty in the way of sloughing. Whether this was due to lack of cleanliness or to the disturbance of nutrition produced by the drug he was unable to say.

R. C. Myles of New York said that he had been particularly fortunate in the use of the powdered suprarenal extract during the past few years. In the last few months he had unfortunate results with the aqueous solution with resorcin, and had three patients leave him because of this. In one case he had used in the nose a ten per cent. aqueous solution of suprarenal extract containing two per cent. of resorcin. It had caused very troublesome sneezing, and then the patient had disappeared. In another case the sneezing had lasted all night and all the next day. All these unfavorable results had occurred in connection with the use of the aqueous solution of suprarenal extract, never with the powdered extract. The solution had been boiled each time.

Price Brown said that he had not used the extract for about one year, because he had met so frequently with irritation. He intended to try adrenalin.

Charles W. Richardson of Washington thought that all must have noticed certain constitutional effects, such as attacks of vertigo, with nausea and headache, resulting from internal administration of the drug.

Jokichi Takamini of New York was invited to take part in the discussion. He said that his work had consisted simply in the isolation of the active principle of the suprarenal gland. He had been the first one to isolate this active principle in the chemically pure crystalline form, and he looked upon this feat as only the beginning of great progress in organotherapy. It was probable that the active principle of many other glands would be similarly isolated in the near future. The very fact of adrenalin being crystalline was nature's certificate that it was a definite chemical substance. It was not his province to determine the best dose or strength in which it should be used. Chemically, adrenalin was a very mild alkali, the alkalinity of which had been just neutralized. He could not, therefore, understand why it should produce such irritation as had been described by some of the speakers. E. Fletcher Ingalls of Chicago was one of those

who had complained to him of the irritation produced by adrenalin, but from a published article by Dr. Ingalls he had learned that this physician had been in the habit of dipping his instruments into a formalin solution. This, of course, would readily explain the irritation observed. It was well known that distilled water produces a good deal of irritation in the eye, and also in the nose, and hence the solution should be made slightly alkaline. The ordinary suprarenal extract contained considerable mineral matter, and its solution was therefore similar to normal salt solution. He had tried the plan of dissolving adrenalin in oil, but had found it practically insoluble. He had, however, succeeded in making an oleate of adrenalin, but the moment this is sprayed it is liable to oxidize and to become quickly inert. It might be possible by the use of a device which would expose only five or ten drops to the air to make use of this oleate, and so overcome the objection just mentioned.

Dr. Wilson, in closing the discussion, said that he had observed no cases of irritation. He had seen irritation from the watery extract of the suprarenal extract, and yet in the same patient adrenalin had not produced this irritation. He had never succeeded in obtaining as active a preparation of the suprarenal extract after sterilizing it by heat. Such deterioration he had not observed with adrenalin, which could be sterilized repeatedly without lessening its efficiency. He had never observed sloughs after the use of adrenalin, though he had used this drug for two days after operation. He was inclined to think that some physicians used it too strong ; one to five or ten thousand was strong enough for ordinary cases.

Empyema of the Right Maxillary, Ethmoidal, and Sphenoidal Sinuses, with Subsequent Blindness of the Left Eye : Operation, and Recovery of Sight, T. H. Halsted of Syracuse.

Dr. Halsted reported this case, and called attention to the frequent anatomical variations in the structure of the sinuses. In the past year many cases had been reported showing the relation of sinus disease as a cause and eye lesion as a result. The case reported was that of a woman of forty-five who, on awakening, had found herself totally blind in the left eye. Examination showed swelling of the sheath of the left optic nerve, enlarged and tortuous veins, and quantitative perception

of light only. For about two years she had had some nasal catarrh, and some months previously had had an acute exacerbation characterized by a constant and free discharge of odorous pus. This pus had been discharged only from the right side. On examination he had found the left side clear. There was pus coming from under the right middle turbinate. Under transillumination the right maxillary sinus was completely dark, and both frontal sinuses were very translucent. The left pupil was widely dilated, and there was exophthalmos. He had made the diagnosis of empyema of the right antrum, right ethmoidal and sphenoidal sinuses, with rupture and probable pressure on the optic nerve. He had advised immediate opening to relieve the pressure. Under cocain anæsthesia and with the aid of suprarenal extract the operation had been undertaken, but had been carried on with difficulty because of free hæmorrhage. A week after the operation she could count fingers, nasal respiration was much improved, and pus was coming from the right side of the nose. Two or three weeks later it had been necessary to enter the antrum and evacuate a considerable quantity of stinking pus. The antrum tube had been removed now about six weeks ; she was entirely free from headache and insomnia, and her general condition had greatly improved. She could read ordinary type with the left eye. From a study of this case it seemed probable that the sudden onset of blindness was the result of the accumulation of pus in the sphenoidal cavity and pressure on the optic nerve running through the optic foramen.

A Case of Frontal and Ethmoidal Disease, with Abscess of the Orbit, Thomas R. Pooley of New York.

The patient was a youth of nineteen, who had come to him suffering intense pain around the right eye and that side of the head. The temperature was 104° F., and the pulse 120. Six years previously this eye had suddenly swollen, and had been relieved somewhat by an incision of the lid. Two years later the sinus had been opened to relieve the swelling. Dr. Pooley had operated under ether anæsthesia, exposing the orbit. The sinus was found enlarged and was curetted. On entering the depth of the orbit one or two drams of pus escaped. An opening was then made into the anterior ethmoidal cells, and

through the infundibulum into the nose. A soft rubber catheter was then drawn through, and the ends of the tube tied together. The wound was packed around the tube. This operation effected immediate improvement. Almost daily dressings were made, and at the end of two months healing was complete. Numerous nasal polypi were discovered after this operation, but they disappeared in a short time. The paper concluded with a reference to the common involvement of the accessory sinuses after scarlet fever, and the need for prompt and through treatment when there is external swelling. The patient was exhibited.

Observations upon the Treatment of Stricture of the Lachrymal Duct by Electrolysis, L. L. Mial, of New York.

Dr. Mial had found silver the best metal to use, and preferred to place the positive electrode on the wrist. As a stricture was never the whole length of the canal, it was a matter of much importance to apply the current only to the narrowed portion. He had used the volt selector, the amperemeter and a rheostat, with the Edison 110-volt current. Anyone could satisfy himself of the relaxing effect of the current by introducing an instrument which is tightly grasped, and then noting how loosely it was held after the passage of the current. Each seance should last from thirty seconds to three minutes. Several illustrative cases were reported. The author claimed that electrolysis is harmless if used properly, that it is antiseptic in its action, that it is much less painful than the usual mode of passing probes, and that it dissolves and relaxes strictures much better than any other method, thus diminishing the danger of tearing the mucous membrane and making false passages.

T. R. Chambers asked if Dr. Mial had used the combination of cocain and adrenalin in the lachrymal canal. He had found that if it were passed in by a small bougie it would be possible to pass a No. 2 or 3 probe. The electrolytic treatment of these cases was new to him, and called for serious consideration, even after making all due allowance for enthusiasm.

N. L. Wilson thought the advantage of electrolysis was simply to relieve the stricture. When he had begun to use electrolysis in the Eustachian tube for this purpose it had occurred to him that the method was applicable to the lachrymal

duct, and he had used it in that duct with equally good results as regards relieving the stricture.

C. Dunbar Roy of Atlanta, Ga., said that he had used electrolysis in the Eustachian tube, but not in the lachrymal canal. He would like to ask whether these electrical bougies are passed through the upper or the lower canaliculus, and whether the latter is always slit before the passage of the bougie.

E. E. Holt of Portland, Me., said that the treatment of these cases was exceedingly difficult at the best, and any improvement should be welcome. In 1881 he had spent some time with Dr. Bowman, and had studied the subject very carefully with those attending the Seventh International Medical Congress in London at that time. It was quite amusing to note the different methods of treatment by those living in different parts of the world. He noted that Dr. Bowman had had some of his cases under treatment a very long time, one of them for fourteen years. He had remarked at the time that quicker methods were demanded in America. Dr. Holt said that his routine method of treating lachrymal disease of long standing was to dilate the lachrymal canal under ether anæsthesia up to No. 13 Bowman, and put in a lead style. He believed, however, that in many cases a good deal could be accomplished by electrolysis.

Dr. Mial, in closing, said that he had used adrenalin and cocain in the lachrymal duct, and while it allowed one to pass the probe with less discomfort to the patient, it had no effect on the stricture. He had used the electrical probe in both the upper and lower canaliculi, but for stricture of the lachrymal duct he always used the lower canaliculus, and the great advantage of the electrolytic method was that one could easily dilate to No. 5, or even No. 8. When an insulated electrical bougie of such size could be introduced the result was exceedingly good, and was obtained without risk. One should not lose sight of the fact that the strictures are relieved. Why the epiphora was not relieved in certain cases he was not prepared to say. He was of the opinion that a stronger current could be used in the Eustachian tube than in the lachrymal duct. He could not give the reason for this, but probably it was because there was more moisture in the lachrymal passages.

(*To be continued.*)

ABSTRACTS FROM CURRENT LITERATURE.

Intracranial Complication of Middle-Ear Disease.—E. Merken.—*Deuts. Z. f. Chir.*, March.

High fever and rapid pulse suggest meningitis, when they accompany symptoms of irritation and a tempestuous course, with rapid changes in the clinical picture. In the case of an abscess the temperature is nearly normal, the pulse slow, with symptoms of paralysis, and a more insidious course may be anticipated. If the abscess is on the left side, typical disturbances in the speech follow. Encephalitis is much less frequent than abscess, and puncture or incision of an encephalitic focus apparently does little harm. With meningitic symptoms great benefit or great harm may result from an operation, and hence the surgeon should proceed step by step. Paracentesis alone may rapidly relieve the most threatening symptoms. If no signs of suppuration can be found in the mastoid process and the symptoms grow worse, the dura or sinus can be exposed. If still no pus is found, and nothing to explain the symptoms, the brain may be punctured, or even incised, proceeding even to puncture of the lateral ventricle. Meningitic symptoms in children may be caused exclusively by the ear affection.

Dunn's Method in the Discission of Soft Cataract.—Percy Dunn.—*London Lancet*, December 29, 1900.

In order to prevent glaucoma he allows the aqueous to drain away before withdrawing the needle, with the idea of producing minus tension, thus preventing rapid swelling of the lens, so that the subsequent restoration of the anterior chamber would necessarily depend upon the degree of swelling of the lens and upon the amount of free lens matter ready for absorption. Not only is the risk of increased tension avoided, but it is possible to

break up the lens freely, and absorption will be rapid—there being more rapid circulation within the eye on account of the lowered tension. He reports the case of a child whose right lens he had needled some months previously for congenital cataract. Only one needling was necessary, but at least three months elapsed before the pupil was black. Under chloroform and good atropin mydriasis he passed a broad cataract needle into the lens, making a vertical and horizontal incision in the capsule, freely broke up the lens, and afterward withdrew the needle until only the point remained in the anterior chamber. Next, he partly turned the needle on its axis, allowing all the aqueous to escape slowly from the eye. The globe and conjunctival sac were thoroughly douched with chinosol (1 in 4000); some drops of atropin (2 grs. to the ounce) were instilled, and a pad of chinosol gauze and a bandage were applied. There was no reaction; in four days the pupil was quite black and all that was left of the lens was a small quantity of soft matter lying at the bottom of the anterior chamber, and after fourteen days there was merely a trace of this. In many cases of extraction for senile cataract difficulty is experienced in obtaining the fairly rapid absorption of lental débris, a result which must be chiefly due to the lowered tension of the eye.—J. L. M.

Carbolic Acid Treatment of Otitis Media Suppurativa.—W. A. Nientchenkoff.—(*Bolnitchnaia Gaz. Botkina*, xii. 10 and 11.

He has cured many cases of long standing in the following manner: In mild cases ten to fifteen drops of a two per cent. solution of phenol in fifty per cent. alcohol are placed in the auditory canal, while the patient's head is inclined toward the healthy side, and with a small pledget of cotton the walls of the canal are rubbed energetically so as to bring the solution in intimate contact with every portion. After two or three minutes the patient inclines the head toward the diseased ear to permit the exit of the fluid. This dissolves out the fatty coating of the walls of the canal, permitting the medication to come in direct contact with the inflamed tissues, and also acts as an antiseptic. The applications are made daily at first, and at greater intervals as the suppuration diminishes; when marked improvement takes

place they are discontinued, because the antiseptic is liable to injure the new-forming tissue. In the graver forms of the disease, especially those accompanied by an elevation of temperature or meningeal complications, the author injects a five per cent. solution of carbolic acid into the surrounding tissues of the middle ear, by pulling forward the auricle so as to put the retrahens muscle on a stretch; the needle is inserted into the squamomastoid fissure and carried along the cartilaginous wall of the external auditory canal until it reaches the middle ear, and a syringeful of the solution injected. The solution acts not only as an excellent antiseptic, but is also an anæsthetic, the patient experiencing almost immediate relief. Following the injection, the exudate soon becomes serous in character and disappears entirely on the twelfth day. However, should the disease be still lingering, the injection is repeated. The recovery is usually so rapid that in no case did the author have to resort to more than three injections. This treatment was employed in thirty-six cases (nine acute and twenty-seven chronic) with uniformly good results.—*Phil. Med. Jour.*, July 6.

X-Rays Cause Conjunctivitis and Retinitis.—J. W. Sherer, abstracted by *Ophth. Rec.*, November, 1901.

A physician, aged twenty-nine, who had been daily exposed for three and a half years, complained of eye fatigue and photophobia; conjunctivitis developed later.

Adrenalin Chloride.—Dudley S. Reynolds.—*Am. Med.*, July 6.

1. A prompt, powerful hæmostatic, acting generally within a minute. 2. Its effects persist from twenty minutes to four hours. 3. It promptly relieves ciliary pain in all forms of keratitis, iritis, and even the cyclitis of glaucoma. 4. It reduces ocular tension in glaucoma, and apparently prevents hæmorrhage in iridectomy. 5. It promptly clears up interstitial opacities. 6. It will, in many cases, so reduce the swelling in the tear passage as to allow a stream of fluid to pass from Anel's syringe through the duct without the use of the probe. 7. In all forms of swelling of the nasal mucous membrane prompt relief follows the application of four or five minims of the solution, sprayed into the nostril. 8. In many cases of phlyctenular keratitis or

conjunctivitis, and in different forms of iritis, it has apparently hastened recovery. [Is apt to cause aching pain in the eyeball in iritis or keratitis.—J. L. M.]

Danger from Adrenalin in the Eye.—Henry B. Lemere.—*Am. Med.*, October 5.

Its astringent contraction extends to those branches of the long ciliary arteries which anastomose with the conjunctival vessels and supply the more superficial portions of the sclera anteriorly.

The tendency then of its local application is to blanch the conjunctiva at the expense of risking the engorging of the deeper anastomosing blood-supply of the iris and ciliary body. With these vessels in their normal condition and the iris or cornea unaffected, this danger is practically nil. But with a tendency to iritis, and especially such tendency as accompanies keratitis and corneal ulcer, the danger is very real.

A superficial corneal ulcer was, after the instillation of adrenalin chlorid solution 1 to 1000, complicated with adhesive iritis. Two cases of iritis were progressing favorably when acute exacerbations together with adhesions immediately followed the use of this drug.

Aspergillar Keratitis, (Kerato-Mycosis Aspergillina).—James Moores Ball.—*Am. Med.*, July 6.

This is a more common disease than has been supposed. There is intense pain in the eye, followed by the development of a brownish or black mass within the substance of the cornea (these are pathognomonic signs). Removal of the mass early in the case is followed by uninterrupted cure, but failure to recognize the condition and apply proper treatment is followed by sloughing of the cornea, and in some cases by loss of the eye. In the few cases where cultures have been made, only aspergillus fumigatus has been found (Schanz).—*Am. Med.*, July 6.

Post-Nasal Adenoids; a Contributory Cause; an After-Treatment.—Harry Campbell.—*Am. Hom.*, July 1.

He believes an important factor in their causation to be imperfect use of the jaws from the practice of feeding children on the bottle and on soft, pappy foods. In consequence of this the circulation of blood and lymph in the tissues of the mouth,

pharynx, and nasopharynx is not duly stimulated, and the door is opened for adenoids and kindred affections.

Thos. M. Stewart suggests an effectual way of preventing recurrence after removal to be dumb-bell exercises for at least a quarter of an hour every day in front of a looking glass, keeping the mouth firmly closed during the exercises, and so forcing nasal breathing. This tends to force the jaws closely together, doing in fact what the mastication of hard food does.

Persistent Corneal Fistulæ.—H. V. Wurdemann.— *Oph. Rec.*, November, 1901.

Reports two cases, 1. A male negro hunchback, aged forty, after five months treatment, without result, with antiseptics, yellow oxid ointment, silver cauterizations, fomentations, etc., was operated by a crucial incision through the corneal ulcer, followed by atropin and a bandage. The wound and ulcer closed, and several months later had not recurred, there remaining only corneal leucoma. 2. A German, aged sixty-five, with central corneal ulcer said his eye had been sore two years. June 14, 1901, it was curetted and cauterized with 1:1000 sublimate solution, atropin instilled, hot compresses used at the hospital for a week, when he returned home no better, coming back for treatment June 22, when Dr. W. thoroughly cauterized the cornea with galvano-cautery, instilled atropin, and made applications twice a day of twenty-five per cent. protargol solution to the corneal ulcer for several days, after which the ulceration was touched with tincture of iodine. The patient had the same treatment at home for a week, then returned to the hospital ; the fistula, being yet open, was again curetted, compressed, and bandage applied, with the result of the ulceration closing by firm union. There is partial cataract, some incarceration of the iris by anterior synechia, and a large leucoma occupies the pupillary area.

The lesson learned by these two rare cases is that operative procedure gives the only hope for recovery and escape from danger of detachment of the retina, atrophy of the eye, luxation of the lens, intra-ocular hæmorrhages, and infection ending in purulent iridocyclitis or even panophthalmitis.

These fistulous ulcerations do not close, either on account of the canal becoming lined by epithelium or the perforation filling

with soft scar tissue permeated by fissures, through which the aqueous oozes until it reaches the external surface of the cornea ; in other cases iris tissue may be incarcerated.

Treat by bandaging, myotics, iridectomy, and cauterization. Marginal fistulous ulcerations have been treated by drawing over the fistula a flap taken from the adjacent conjunctiva, also by excising the tissue with the corneal trephine, together with the cicatricial tissue surrounding it and implanting in the opening an equally large piece of healthy cornea. The two cases I have treated have been by corneal incision, bandaging, and cauterization ; the latter procedure should be carefully done to avoid singeing the anterior surface of the lens and producing cataract.—J. L. M.

Unusual Foreign Body in Pharynx.—W. Stanley Samson.—*The Laryngoscope*, October.

The patient had had syphilis for six years. The bony septum had disappeared; the veil of the palate had ulcerated from its attachment with the hard, and one side had cicatrized fast to the posterior wall of the pharynx, forming a pocket in which had lodged the remains of the bony septum, 25 × 33 mm. in size.

A. W. P.

Some of the Bacteria Found in the Nose.—Samuel Iglanar.—*The Laryngoscope*, November.

Thomson and Hewlett, in London *Lancet*, 1896, estimate that a person breathing London atmosphere inspires from fifteen hundred to fourteen thousand germs per hour. The author found the following in the nasal mucus: staphylococcus pyog. aur., staph. pyog. alb., coli group, diplococ. pneumon., streptococci, pseudo-dipth. group, bac. pyocyaneus, capsul. bac. group, bac. influenza, subtilis group, yeast, and a few unidentified colonies, and concludes: " The positive findings overwhelm the negative results; the weight of evidence *is strongly to the effect that the normal nasal mucus contains bacteria.* However, the flora of the nose cannot be as abundant as we would suppose from the number of bacteria inspired, for the following reasons; (1) The surface over which the bacteria are scattered is rather large. From measurements I have made I find it to be about 154 square cm. in the nose, and 25 square cm. in the naso-pharynx. (2) A cer-

tain number of bacteria must reach the naso-pharynx, from which they are swallowed and digested. (3) The flow of mucus and serum, together with gravity, tend to carry away the germs. (4) The nasal mucus is not a good culture medium. (5 and most important) The organisms which have lodged in the nose are expelled by the ciliated ephithelium with great rapidity. This action has been measured in the frog, as at the rate of one inch per minute. (6) A recent work seems to show that the nasal epithelium has bactericidal power. *The practical conclusions to be drawn are:* First. It is advisable to sterilize the vestibule of the nose before operation. Second. After operations the nostril on the operated side should be closed with a piece of cotton to act as a filter. Third. Plugging of the nasal cavity after operations is as a rule inadvisable, as it tends to retain the nasal secretions. Fourth. Nasal wounds do not heal by first intention, owing to the presence of bacteria. This also explains the occurrence of secondary hæmorrhage. Fifth. Fever after operations and the few deaths recorded have probably been due to the presence of pathogenic micro-organisms in the nose."

A. W. P.

Toxic Symptoms of Corrosive Sublimate.—Robt. N. Norris.—*N. A. Jour. Hom.*, quoting *Med. Adv.*

Eye.—Injected, with oozing of blood from the corners.

Ears.—Tendency to pick the ears; blood from the ear; hardness of hearing.

Nose.—Sore, cracked, bleeding, painful.

Mouth.—Cadaverous odor of the breath; soreness of mucosa; spongy, bleeding, gangrenous condition of the gums; later the mouth became dry; tongue cracked and sore. A. W. P.

Some Observations and Remarks on the Air-currents in Nasal Respiration.—Chas. A. Parker.—*Jour. of Lar., Rhin. and Otol.*, July.

After giving the opinions of the principal authorities on this subject, and a detailed account of his experiments with lycopodium powder, smoke, etc., he summarizes as follows: (1) During quiet inspiration in a normal nose the air traverses the middle, superior, and probably the fourth meatus. (2) Inspiration is impeded by: (a) Spurs and deviations of the septum and

enlargements of the inferior turbinated body, if they project forward and upward. (For practical purposes I think a rule may be laid down that if such abnormalities cross and break an imaginary line drawn from the anterior extremity of the inferior meatus—*i. e.*, just internal to the vestibule—to the anterior end of the middle turbinate, they will cause obstruction.) (b) Enlargements of the middle turbinate, polypi, etc. (c) Hypertrophies and growths springing from the vault of the naso-pharynx.

(3) In expiration the air traverses chiefly the inferior meatus.

(4) Expiration will be more especially affected by: (a) Hypertrophies of the posterior and of the inferior turbinate. (b) Hypertrophies, etc., causing stenosis of the inferior meatus.

A. W. P.

Iodide of Sodium or Potassium Collyria for Incipient Cataract.—Professor Badal, Bordeaux, in *La Semaine Médicale*, Nov. 31, 1901.

He has apparently checked cataract for eighteen months and for two years by twice a day instilling a couple of drops, or applying with an eyecup for from one to two minutes to the open eyes, 2.5 per cent. solution of ether iodide, which, he claims, is readily absorbed. J. L. M.

Blindness from Sodium Salicylate.—Ophth. Soc. of the United Kingdom, July.—*Brit. Med. Jour.*, July 13.

Mr. Simeon Snell reported a girl had taken 140 or 160 grains in sixty hours for acute articular rheumatism. She awoke in the morning totally blind; fundi normal that day and the next. In evening she died with peri- and endo-carditis; no return of vision.

J. L. M.

Pathogenesis and Treatment of Nasal Hydrorrhœa. —Brindel.—*Revue Hebd. de Laryn.* (Bordeaux), May 25.

Microscopic examination of the nasal mucosa, in cases of spasmodic coryza with nasal hydrorrhœa, shows an accumulation of round cells, epithelial desquamation, multiplication of the blood vessels and great dilatation of the veins. These changes are accompanied by extravasation of the blood in the mucosa and transudation of the serum through the meshes of the connective tissue. The hydrorrhœa is therefore a kind of œdema

with immediate excretion of the extravasated fluid. The mucosa becomes more or less degenerated, and the most favorable treatment is by single or double turbinotomy. No glands are visible in the tissues removed, in four-fifths of the cases. Brindel has recently treated a case in which the tissues removed by the turbinotomy were tubercular, showing that a primary, non-ulcerative tuberculosis of the nasal fossa may deceptively simulate spasmodic coryza with hydrorrhœa and may be cured with the same treatment, that is, partial turbinotomy.

A. W. P.

A Case of Purpura, with Gangrene (Dry) of the Nose.—Hugh A. Johnston.—*Amer. Med.*, September 14.

A married woman, aged thirty, dark, robust, and of a good family history. There was no previous history of ill-health, but she had a miscarriage a short time before. The onset was very sudden (came on while sewing), main hemorrhage being into the subcutaneous tissue of the nose and adjoining cheeks, limited by the eyes above and the mouth below. When seen three days later there had been slight absorption from the cheeks, which were dark red, while the nose was an intense black (dry gangrene), with an offensive discharge from the nostrils. There were also maculæ of a bright red color, non-removable by pressure, of various sizes on the arms, legs, and body. There had been and was some hæmorrhage from the vagina. The cervix was dark in color, with offensive discharge from os. Temperature was 101°, pulse 130, full and bounding. The mind was clear, eyes bright and jaundiced, tongue dry and furred; mouth, uvula, and throat were congested. The patient breathed with difficulty through the mouth, and there was much rattling, due to an accumulation of mucus. There was also a slight pain in the hips and knees, but no redness or swelling. The main symptom the patient complained of was an oppressive fullness in the epigastrium. There was no blood in the urine or fæces. Death occurred two days later, being attributed to involvement of the lungs.

A. W. P.

BIBLIOGRAPHY.

The reader who notes any omissions or errors will confer a favor by sending corrections to Dr. W. U. Reynolds, 320 Manhattan Ave., New York.

5 Am. J. of M. Sc. (Phila.).
6 Am. J. of Ophthalm. (St. Louis).
7 Am. J. of Physiol. (Boston).
9 Am. Medicine (Phila).
12 Anat. Anz. Centralb. (Jena).
15 Ann. de la Policlin. de Paris.
17 Ann. de la Soc. Roy. des Sc. M. et Nat. de Bruxelles.
21 Ann. des Mal. de l'O., du Lar., du Nez et du Phar. (Paris).
22 Ann. d'Oculistique (Paris).
23 Ann. d'Ophtalmol. (Paris).
25 Ann. di Med. Nav. (Roma).
26 Ann. di Ottalmologia (Paris).
28 Ann. of Ophthalmol. (St. Louis).
29 Ann. of Ot., R. and L. (St. Louis).
33 Arb. aus Anat. Inst. (Wiesbaden).
34 Arb. a. d. Chir. Klin. d. Königl. Univ. (Berlin).
36 Arch. of Ophthalm. (N. Y.).
37 Arch. of Otol. (N. Y.).
38 Arch. d'Ophtalmol. (Paris).
39 Arch. de M. et de Chir. Sp. (Paris)
40 Arch. de M. Experim. et d'Anat. Pathol. (Paris).
42 Arch. Internat. de Lar., de l'Ot., et de Rhinol. (Paris).
46 Arch. f. Anat. u. Phys. (Jena).
47 Arch. f. Augenh. (Wiesbaden).
48 Arch. f. Ohrenh. (Leipzig).
49 Arch. f. Lar. u. Rhin. (Berlin).
50 v. Graefe's Arch. f. Oph. (Leipzig)
52 Arch. f. Mic. Anat. u. Ent. (Bonn)
53 Arch. f. d. Gesam. Phys. des Mensch. u. d. Thiere. (Bonn).
54 Arch. f. Pathol. Anat. u. Phys.
56 Arch. Ital. di O., R. e L. (Torino).
57 Arch. Ital. di Lar. (Napoli).
58 Arch. di Ottalmol. (Palermo).
65 Atti delle Accad. delle Sc. M. e Nat. (Ferrara).
75 Beitrage z. Augenh. (Hamburg).
80 Brain.
82 British Med. Journ.
85 Buffalo M. Jour.
86 Bull. de Lar., Ot., et Rh. (Paris).
87 Bull. et Mem. de la Soc. M. des Hôp. de Paris.
88 Bull. of Johns Hopkins Hosp. (Balt.).
98 Centralbl. f. pr. Augenh. (Berlin).
105 Clinical Journal (London).
120 Edinburgh Med. Journal.
125 Gaceta Medica (Mexico).
126 Gac. Med. Catalana (Barcelona).
128 Gaz. des Hôp. (Paris).
131 Giorn. Internaz. delle Sc. M. (Napoli).
132 Giorn. delle Assoc. Napol. di Med. e Nat.
133 Giorn. delle R. Accad. di M. di Torino.
139 Guy's Hosp. Gaz. (London).
141 Hahnemannian Mo. (Phila.).
144 Hom. E., E., and T. Jour. (N.Y.)
155 Indian Lancet.
156 Indian Med. Gaz. (Calcutta).
157 Indian Med Rec.
172 J. de Phys. et de Pathol. Gen. (Paris).
173 J. of Advanced Therap. (N. Y.).
175 J. of Am. Med. Assn. (Chicago).
176 J. of Anat. and Phys. (London).
178 J. of Brit. Hom. Soc. (London).
182 J. of E., E., and T. Dis. (Balt.).
183 J. of L., R., and O. (London).
184 J. of Ment. and Nerv. Dis (N.Y.)
185 J. of O., O., and L. (N. Y.).
188 J. of Physiol.
193 Klin. Monatsbl. für Augenh. (Stuttgart).
195 Klin. Vortr. and Geb. d. Otol. u. Phar. Rhin. (Jena).
200 La Clin. Ophtal. (Paris).
215 Laryngoscope (St. Louis).
220 Le Progrès Méd.
225 London Lancet.
229 Lo Sperimentale (Fierenze).
235 Med. and Surg. Jour. (Boston).
240 Medical News (N. Y.).
242 Med. Press and Circ. (London).
245 Medical Record (N. Y.).
250 Medical Times (London).
254 Med. Times and Hosp. Gaz. (London).
260 Mind (London).
265 Monatsch. f. Ohrenh. (Berlin).
275 N. Y. Eye and Ear Infirm. Rep.
280 N. Y. Med. Jour.
283 N. Y. State Jour. of Med. (N. Y.)
285 No. Am. Jour. of Hom. (N. Y.)
290 Nouv. Icon. de la Salpet. (Paris).
299 Ophthalmic Record (Chicago).
300 Ophthalmic Review (London).
310 Phila. Med. Jour.
313 Post-Graduate, The (N. Y.).
315 Proc. of the Phila. Pathol. Soc.
317 Proc. of the Roy. Soc. (London).
330 Receuil d'Ophtalm. (Paris).
333 Revista Espec. Med. (Madrid).
340 Rev. Gen. d'Ophtalm. (Paris).
343 Rev. Hebd. de L., de l'O. et de R.
355 Schmidt's Jahrb. d. in- u. ausland ges. Med.
356 Sei- I- Kwan Med. Jour. (Tokio).
400 Univ. of Pa. Med. Bul. (Phila.).
450 Zeitschr. f. Augenh. (Berlin).
455 Zeitschr. f. Ohrenh. (Wiesbaden).
460 Zeitschr. f. Physiol. u. Phys. d. Sinnesorg. (Leipzig).

OPHTHALMOLOGY.

Hysterical Disorders of the Eye. Frank A. Phillips (Chicago), 6, Sept.

Eye Complications in a Case of Ankylostomiasis. Howard F. Hansell (Phila.), 175, Sept. 14.

A Choroidal Sarcoma Producing Rupture of the Cornea in an Unusual Manner. F. H. Verhoeff, and F. M. Spalding, 36, July.

A Case of Pulsating Exophthalmos. E. Oliver Belt (Washington), 36, July.

Sterilization and Care of Instruments. W. B. Lancaster (Boston), 36, July.

Optic N. Atrophy Associated with Cranial Deformity. Harry Friedenwald (Baltimore), 36, July.

Herpes Zoster Oph., Resulting in Loss of Eye. Double Suppurative Irido-Choroiditis in Association with Purpura Hæmor. Robt. L. Randolph (Baltimore), 36, July.

The Injection of Sterile Salt Solution into Collapsed Eyeballs. Two Cases. Elmer G. Starr, 36, July.

Periscopic Lenses. A. S. Percival (Newcastle-on-Tyne), 36, Sept.

Report of the Meetings of the Oph. Soc. of the United Kingdom, May 2 and July 5, 1901. C. Devereux Marshall, 36.

Use of a Glass Lachrymal Pipette. W. H. Bates (New York), 36, Sept.

Perforating Wound of Upper Lid and Eyeball; Reduction of Prolapsed Iris; Recovery. S. J. McLennan (Glan Bay), 36.

Embolism of the Central Artery of the Retina. C. Schweigger, (Berlin). Tr. by W. A. Holden, 36, Sept.

Bell's Phenomenon. W. A. Nagel (Freiburg-in-Br.) Tr. by W. A. Holden, 36, Sept.

Ocular Affections in cases of Xeroderma Pigmentosum (Epibulbar Carcinoma) in a Boy of Six Years. R. Gruff (Berlin), 36, Sept.

Thrombosis of the Central Artery of the Retina. Leonore Welt (Geneva), 36, Sept.

Transplantation of a Large Wolff Graft, Forming a New Lining of the Orbit, and Permitting the Wearing of an Artificial Eye. Charles H. May (New York), 36, Sept.

Determination of the Presumable Refraction of the Eye, with and without its Crystalline Lens. Edmund Landolt (Paris). Tr. by Wm. R. Mittendorf, 36, Sept.

La Grippe, with Special Reference to the Eye and Ear Complications. E. Elmer Keeler (Syracuse), 144, Sept.

Eye Strain, Clinical Cases. Frank D. W. Bates (Hamilton, Ont.), 144, Sept.

Use of the Ortho-Phorometer. E. W. Beebe (Milwaukee), 144, Sept.

Hæmatology in Its Relation to Ophthalmology, Illustrated by a Case of Optic Neuritis. Roy S. Copeland (Ann Arbor, Mich.), 144, Sept.

Obstructions of the Lachrymal Apparatus. C. Gurnee Fellows, (Chicago), 144, Oct.

Plea for the Simpler Treatment of Stricture of the Tear Duct. W. B. Kreider (Goshen, Ind.), 144, Oct.

New Operation for the Relief of Obstruction of the Nasal Duct. Chas. L. Rumsey (Baltimore), 144, Oct.

Large Probes in the Treatment of Dacryocystitis. F. B. Kellogg (Los Angeles), 144, Oct.

Operative Procedures in Mature and Immature Cataract. Bushrod W. James (Phila), 144, Nov.

Diphtheritic Conjunctivitis. Edgar J. George (Chicago), 185, Sept.

Advantages of Diphtheria Antitoxin in the Treatment of Diphtheria. Geo. E. Gorham (Albany), 185, Sept.

Application of Electro-Static Currents to Nervous and Inflammatory Affections of the Eye, Ear, Nose, and Throat. Wm. B. Snow (New York), 185, Sept.

Excision of the Retrotarsal Fold. N. A. Kan. Tr. from the Russian, by H. Zeckhausen (N. Y.), 185, Sept.

A Large Subcortical Tumor of the Occipital Lobe, Producing Hemiparesis and Hemianopsia, with Pupillary Inaction Sign. F. H. Dercum, 184, Aug.

Bifocal Lenses; What Area Shall be Devoted to the Shorter Focus? John E. Weeks (New York), 245, Aug. 24.

Metastatic Choroiditis Occurring in the Course of Pneumonia due to Grippe. Six Cases with Two Autopsies. Charles S. Bull (New York), 245, Aug. 31.

Extra-Ocular Eye Diseases. Jas. A. Campbell (St. Louis), 285, Oct.

Comparative Study of Conjunctivitis. D. W. Weaver (Greensburg, Ind.), 285, Nov.

Comparative Study of Retinal Inflammations. Thos. M. Stewart (Cincinnati), 285, Nov.

Localization of Septic Foci in the Brain. H. F. Biggar (Cleveland), 285, Nov.

Three Mechanical Rules for the Ready Detection of the Paretic Muscle in Single Ocular Paralysis. M. F. Weymann (St. Joseph, Mo.), 299, Oct.

Foreign Body Removed from Eyeball, Eighteen Years after the Injury; Sympathetic Inflammation Three Times without Loss of Vision. Alvin A. Hubbell (Buffalo), 299, Oct.

Hysteric Blindness and Deafness. H. V. Wurdemann (Milwaukee), 299, Oct.

New Operative Procedure for Treating Inflammation of the Posterior Part of the Eye. S. Busby Allen (New York), 245, Sept. 21.

Enucleation of the Eyeball. D. B. St. J. Roosa, 313, Oct.
Disadvantages of Copper Sulphate in Diseases of the Conjunctiva and Cornea. Cornelius Williams (St. Paul), 245, Sept. 21.
The Present Status of Jannesco's Operation. Marcell Hartwig (Buffalo), 283, Aug.
The Technique of Bloodless Work. R. H. M. Dawbarn (New York), 283, Aug.
Ophthalmia Neonatorum; Its Pathology, Prophylaxis, and Treatment. John E. Weeks (New York), 283, Aug.
Strabismus and Its Management. J. H. Woodward (New York), 283, Sept.
Advancement; Forms of Operation and when Indicated. Francis Valk (New York), 299, Aug.
A Lid Retractor. Wm. E. Baxter (Boston), 299, Aug.
Hereditary Binocular Ophthalmoplegia. C. F. Heard (North East, Pa.), 299, Aug.

OTOLOGY.

Einige Fälle endocranieller Complicationen acuter und chronischer Mittelohreilerungen. Heinrich Schenke (Flensburg), 48, B. 53.
Ueber einige auf nicht operativen Wege geheilte Fälle otitischer Pyämie. Walther Schulze (Halle), 48, B. 53.
Ueber Betheiligung des Schläfenbeines bei acuter Osteomyelitis. W. Zeroni (Karlsruhe), 48, B. 53.
Akustische Untersuchungen über Mittönen und die Helmholtzsche Lehre von den Tonempfindungen. Herman Dennert (Berlin), 48.
Beitrag zur operativen Behandlung der otogenen Sinusthrombose insbesondere zur operativen Freilegung des Bulbus Venae Jugularis. Grunert (Halle), 48, B. 53.
Ueber Versuche mit Anheilung des Trommelfells an das Kopfchen des Steigbügels nach operativen Behandlung chronischer Mittelohreiterungen. Matte (Köln am Rh.), 48, B. 53.
Erfahrungen über die Totalaufmeisselung (Radical operation) bei acuten und chronischen Mittelohrerkrankungen. Felix Cohn (New York), 48, B. 53.
Eine emfache Vorrichtung zur Erreichung eines zuverlässigen Asepsis bei Operationen am Warzenfortsatz und am Schädel überhaupt. Hölscher (Tübingen), 48, B. 53.
Das Oto-Stroboskop und seine physiologische diagnostische Bedeutung. August Lucae, 48, B. 53.
Die physikalische Begründung der Theorie von der Leitung der tiefen Töne zum Labyrinth durch die Paukenluft. E. Kleinschmidt (Chemnitz), 455, xxxix. 4.
Die Nachbehandlung der Radicaloperation ohne Tamponade. A. von der Mühlen (Riga), 455, xxxix. 4.

Theoretische und experimentelle Untersuchungen der Massage wirkung auf den Schallleitungsapparat. J. Hegener (Heidelberg), 455, xxxix. 4.

Ueber den therapeutishchen Werth der Vibrationsmassage des Trommelfells. Schwabach (Berlin), 455, xxxix. 2.

Ueber ein Symptom der Hämoglobinurie: Cyanose und Gangrän am Ausseren Ohr. Fritz Rohrer (Zurich), 455, xxxix. 2.

RHINOLOGY.

Nasal Septum Rhinology. Walter J. Freeman (Philadelphia), 215, Oct.

Nose and Throat in the History of Medicine. Jon. Wright (Brooklyn), 215, Oct.

Epileptiform Convulsions Caused by Shoe Button in the Nose. J. S. Steele (Monterey, Mexico), 215, Oct.

Lithemic or Recurrent Coryza. B. K. Rochford (Cincinnati), 9, July 27.

Some New Therapeutic Applications of Europhen. W. E. Thomas (Brooklyn), 9, Aug. 3.

After-Treatment of Operation on the Nasal Accessory Sinuses. Walter A. Wells (Washington), 235, July 25.

Nasal Deformity from a Median Furrow, Corrected from Septal Cartilage. J. L. Goodale (Boston), 235, July 25.

Nasal Polypi: Ætiology and Pathology. Irving Townsend (New York), 144, Nov.

The Treatment of Nasal Polypi. Edward Beecher Hooker (Hartford), 144, Nov.

The Relation of the Middle Turbinate Body to Chronic Nasal Diseases. L. H. Baker (Bay City), 175, July 20.

Acute Edema of the Nasal Septum. J. L. Goodale (Boston), 175, July 20.

Empyema of the Frontal Sinus. E. Fletcher Ingals (Chicago), 175, July 27.

Anomalies of the Frontal Sinus and their Bearing upon Chronic Suppurative Sinusitis. Redmond W. Payne (San Francisco), 175, July 27.

The Effect which the So-called Catarrhal Diseases of the Nose and Throat may have upon the General Health. Carolus M. Cobb (Boston), 175, July 27.

The Nose and Throat in the History of Medicine. Jon. Wright (Brooklyn), 215. Aug.

Subarachnoid Injection of Cocain as a General Anæsthetic for Operation upon the Head. Redmond Payne (San Francisco), 215, Aug.

A Variation in the Technique of Septum Operations. Stephen H. Lutz (Brooklyn), 215, Aug.

Empyema of the Antrum of Highmore in Young Infants. Emil Mayer (New York), 245, Aug. 10.

Some Etiological Aspects of Malignant Neoplasms. Editorial, 245, Aug. 10.

Foreign Bodies in the Nose and Ear. Percy Friedenberg (New York), 245, Sept. 21.

Angeio-Sarcoma of the Nose. Stanley S. Cornell (Athens, Ont.), 280, Aug. 24.

The Effect of Nasal Stenoses on the Throat, Ear, and Organs at a Distance. W. Peyre Porcher (Charleston, S. C.), 280, Aug. 31.

Atrophic Rhinitis in its Purely Clinical Aspect. Carl Seiler, (Scranton, Pa), 280, Aug. 31.

Diagnostic Points in Nose and Throat Symptoms. C. R. Armstrong (Thorntown, Ind.), 285, Oct.

Treatment of Whooping Cough by Nasal Irrigation. Edwd. Maguire, 242, Aug. 7.

Serous Diseases of the Maxillary Sinus, with a Report of Two Cases. W. E. Casselberry, 183, Sept.

The Use of Gelatin for Controlling Hæmorrhage. Joseph Sailer, 155, Oct. 7.

LARYNGOLOGY.

Primary Epithelioma of the Uvula. Seymour Oppenheimer (New York), 245, Aug. 10.

An Unusual Anomaly of the Faucial Tonsil. Geo. L. Richards (Fall River, Mass.), 175, July 27.

Function of the Tonsils; Suggestions Regarding the Differential Diagnosis of Tonsillar Affections. Matheny (Galesburg, Ills.), 245, Sept. 14.

Splenic-Myelogenous Leukæmia with Pulmonary, Laryngeal, and Faucial Tuberculosis. Arnold Sturmdorf (New York), 5, Aug.

Aneurism of the Internal Carotid Artery. Walter B. Johnson, 5, Sept.

Pseudomembranous Inflammation of the Mucous Membranes, caused by the Pneumococcus. Chas. Cary, and Irving Phillips Lyon, 5, Sept.

Hay Fever in Mid-Ocean. W. C. Hollopeter (Philadelphia), 9, Aug. 10.

Foreign Body in the Trachea. By W. T. Henderson (Mobile, Ala.), 9, Aug. 10.

A Large Abscess of the Pharynx Caused by Probing for a Plate of False Teeth Supposedly Lodged in the Esophagus. B. P. Key (Tracy City, Tenn.), 9, Aug. 17.

Six Cases of Intubation of the Larynx. B. W. McGalliard (Trenton, N. J.), 9, Aug. 17.

Acute Follicular Tonsillitis Complicating the Course of True Diphtheria. Wm. P. Munn (Denver), 9, Sept. 7.

Chronic Nasopharyngeal Bursitis, (Thornwaldt's Disease). Dunbar Roy (Atlanta), 29, Aug.

Wounds of the Thoracic Duct Opening in the Neck. Report of Two Cases, Résumé of Seventeen Cases. Dudley P. Allen and C. E. Briggs (Cleveland), 9, Sept. 21.
Traumatic Affections of the Uvula. Seymour Oppenheimer (New York), 29, Aug.
Acute Lacunar Inflammation of the Tonsils. Marshall R. Ward (Pittsburg), 29, Aug.
Non-Syphilitic Mucous Patches of the Throat. O. Joachim (New Orleans), 29, Aug.
Disease of the Upper Air Passages in Relation to Mental Development. LaFayette Page (Indianapolis), 29, Aug.
Etiology of Nasal Deformities. Wendell C. Phillips (New York), 29, Aug.
Angina Epiglottidea Anterior. S. E. Allen (Cincinnati), 29, Aug.
Pharyngo-Mycosis. Arthur G. Root (Albany), 29, Aug.
An Apparent Case of Diphtherial Infection from Well Persons Carrying Diphtheria Bacilli. Franklin W. White (Boston), 235, Aug. 29.
The Treatment of Stricture of the Esophagus. Theodore Dunham (New York), 235, Aug. 29.
General Anæsthesia in Operation upon the Nose and Throat—Nitrous Oxid, Chloroform, and Ether. F. E. Hopkins (Springfield, Mass.), 235, Sept. 12.
Mycosis Tonsillaris. Fred. D. Lewis (Buffalo), 144, Sept.
Aortic Aneurism Affecting the Larynx, Trachea, and Œsophagus. W. M. Stearns (Chicago), 144, Sept.
Thuja Occidentalis in Removal of Papilloma of the Larynx. James M. Brown (Chicago), 175, Aug. 3.
Primary Carcinoma of the Nasopharynx. A Table of Cases. Chevalier Jackson (Pittsburg), 175, Aug. 10.
Nasal Sarcoma. Dunbar Roy (Atlanta, Ga.), 175, Aug. 10.
Case of "Epithelioma" Involving Tonsil, Faucial Pillar, Tongue, and Buccal Surface, with Treatment and Apparent Cure. S. A. Oren (Lanark, Ill). 175, Aug. 10.
Traumatic Affections of the Uvula. Seymour Oppenheimer (New York), 175, Sept. 7.
The Tonsils as Portals of Infection. A. W. Reddish (Sidney, Ohio), 185, Sept.
Report of Am. Inst. of Homœop. (Continued), 185, Sept., Nov.
Papillomatous Growths of the Soft Palate. Wm. F. Dudley (Brooklyn), 215, Aug.
Traumatic Dislocation of the Left Arycartilage. Henry L. Wagner (San Francisco), 215, Aug.
Treatment of Certain Purulent Conditions of the Antrum of Highmore through the Natural Opening. Norval H. Pierce (Chicago), 215, Sept.
Diagnosis of Adenoids in Infancy. Walter F. Chappell (New York), 215, Sept.

Glandular Complications of Tonsillitis and Peritonsillitis. Talbot R. Chambers (Jersey City), 215, Oct.
Chronic or Recurrent Peritonsillar Abscess. H. J. Hartz (Detroit), 215, Oct.
Unusual Foreign Body in the Pharynx. W. Stanley Samson (Lancaster, Ohio), 215, Oct.
Recurrent Paralysis with Complete Aphonia Passing into Abductor Paralysis, with Returning Singing Voice. J. W. Gleitsmann (New York), 215, Oct.
Acute Suppuration of the Faucial Tonsils and Peritonsillar Tissue. M. A. Goldstein, 215, Oct.
A Foreign Body in the Esophagus. Russell S. Fowler (New York), 240, Sept. 14.
Cleft Palate and its Association with Hare-Lip. John H. Branth (New York), 280, Aug. 10.
Antisepsis in Throat and Nose Surgery. Henry Wallace (Brooklyn), 280, Aug. 17.
The Oesophagometer, or Intra-Gastric Whistle. A New Device for Measuring the Length of the Oesophagus in the Living. C. D. Spivak (Denver), 280, Aug. 31.
Clinical Diagnosis of Carcinoma of the Oesophagus, and the Technics of Gastrotomy. Chas. G. Cumston (Boston), 280, Sept. 14.
The Bucco-Antral Route in Neurectomy for the Relief of Tic Douloureux. G. King (New Orleans), 310, Aug. 10.
Tic Douloureux, with Successful Removal of the Gasserian Ganglion. Henry T. Williams (Rochester), 310, Aug. 10.
Post-Typhoidal Ulceration, and Abductor Paresis of the Larynx; Tracheotomy: Recovery. D. J. Gibb Wishart (Toronto), 310, Sept. 7.
The Principles of Treatment of Tuberculous Laryngitis. St. Clair Thomson (London), 310, Sept. 14.
Treatment of Cancer of the Tongue. J. Bland-Sutton (London, Eng.), 105, Aug. 14.
Diphtheretic or True Croup. Louis J. Pons, 155, July 22.
The Principles of Treatment of Tuberculous Laryngitis. St. Clair Thomson, 183, Oct.
Tonsillotomy Rash. Wyatt Wingrave (London), 225, Aug. 3.
Tonsillotomy Rash. Wyatt Wingrave, 183, Oct.
The Study of Laryngology in the University and in the Higher Medical Education. John N. Mackenzie, 183, Sept.
The Acute Retro-Pharyngeal Abscess of Infants. S. Vere Pearson, 225, Oct. 26.
Six Cases of Excision of the Larynx. F. G. Harvey, 225, Sept. 21.
Multiple Papillomata of Larynx. N. C. Haring, 242, Aug. 28.
A Note on the Best Method of Removing Tonsils. Macleod Yearsley, 250, Aug. 31.

BOOK REVIEWS.

A Text-book on Diseases of the Ear, Nose, and Throat. By Charles H. Burnett, M. D., E. Fletcher Ingals, M. D., and James E. Newcomb, M. D. With numerous illustrations. J. B. Lippincott Co., Philadelphia and London, 1901. Pp. 716.

Not only the anatomical, but the close clinical relations of the ear and naso-pharynx are very properly leading to the association of ear practice with rhinology and laryngology, instead of the old coupling of oculist and aurist. This book is an evidence of this change. The advisability of combining text-books on related but different, subjects in one work is still an open question; the verdict will be favorable when, as here, the result is a not unwieldy volume, each department being written by an acknowledged authority in his specialty. Our authors have covered their subjects well, writing in a clear style. The typography and binding are excellent, but the 282 illustrations are quite uneven, the 14 plates good, and the index is not nearly as complete as it should be.

We commend this text-book to every general practitioner as well as to every medical student. J. L. M.

International Directory of Laryngologists and Otologists, Containing Names and Addresses of Practitioners Engaged in the Study and Practice of Laryngology and Otology. Compiled by Richard Lake, F. R. C. S., Eng. Published under the auspices of *The Journal of Laryngology, Rhinology and Otology*. London, Rebman, Ltd., 129 Shaftesbury Ave., Cambridge Circus, W. C., 1901. Second edition, revised and enlarged. Pp. 124. Price 5 sh. net. "All rights reserved."

A handy little book, well indexed, that helps one furnish a patient about to travel with names and addresses of specialists on the eye, ear, nose or throat in the various countries. Oculists are ignored, except they cover the nose, throat, and ear; we

trust that the scope of the next edition will embrace those who still associate the eye and ear without the nose and throat. One wonders how these names were selected. Are we to infer that Chicago leads the world in quality and quantity? It shows 152 names against 106 in New York, 101 in Paris, and but 68 in London. J. L. M.

ELECTRICITY IN MEDICINE AND SURGERY, INCLUDING THE X-RAY. By WILLIAM HARVEY KING, M. D., Editor of the Journal of Electrotherapeutics; author of a text-book on Electrotherapeutics and of a treatise on Spermatorrhœa, Impotence, and Sterility; Professor of Electrotherapeutics in the New York Homœopathic Medical College and Hospital, and in the New York Medical College and Hospital for Women; Visiting Electrotherapeutist to the Metropolitan Hospital; Consulting Electrotherapeutist to the Flower Hospital, and to the New York Medical College and Hospital for Women; Member of the American X-Ray Society and of the National Society of Electrotherapeutists, etc.

IN TWO PARTS. With a section on ELECTRO-PHYSIOLOGY, BY WALTER Y. COWL, M. D., of Berlin, Abtheilungschef am Institut für medicinische Diagnostik, u. Assistent am physiologischen Institut der Universität; and a section on THE BOTTINI OPERATION, BY ALBERT FREUDENBERG, M. D., of Berlin, Germany, Genito-urinary Surgeon. Boericke & Runyon Co., New York, 1901. Pp. 501. Price $3.50 net.

Although diseases of the eye and ear have been omitted because "they have become such exclusive specialties," and "the therapeutic action of electric light has not been included, as the author does not consider that he has had sufficient experience in that field to pass judgment on the various claims made for it," we heartily commend this book to every oculist and aurist as well as to all students, surgeons, and physicians.

It is entertainingly written, clearly arranged, well illustrated and indexed, and of a handy size, presenting all (with the above exceptions) that is well established* on this subject. Material from nearly every country and language has been weighed by the author's large experience and knowledge of the therapeutic use of electricity.

Dr. Cowl anticipates that "the coming decade will clarify, extend, and systematize our knowledge of the processes of organic nature (physiology upon an electric basis) by means of

* July 4, 1901.

new methods and guided by new principles, involving a change in nomenclature."

We predict a second edition soon, when the typographical errors will be corrected and the author will conform to general usage and etymology by spelling skiagraph with an "a" instead of the "o." J. L. M.

THE PHYSICIAN'S VISITING LIST (LINDSAY AND BLAKISTON'S) FOR 1902. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia.

The fact that this is the fifty-first year of this publication emphasizes its worth and convenience.

We heartily approve the metric system in prescribing and commend the simplicity of the directions and tables here given for its conversion. J. L. M.

DIRECTORY OF HOMŒOPATHIC PHYSICIANS IN NEW YORK AND VICINITY, 1901. Edited by GEO. A. SHEPARD, M. D. Published by James Alexander Robinson, 151 West Ninety-seventh Street, New York. Pp. 134, cloth, $1.00.

This handy and reliable little volume might, with no stretch of propriety, be termed almost indispensable to every homœopathist.

Dr. Shepard modestly feels that "it is more nearly correct than ever before," and we agree with him, commending and appreciating his good work the more highly in that we struggled for years with the Homœopathic State Directory. The only errors that we note as yet are the failure to give the names of Dr. J. B. Garrison and W. N. Bell, who were nominated last February, and later appointed State Medical Examiners to suc- Drs. F. F. Laird and E. Chapin (Dr. Couch's resignation was not announced in time—September—for this volume), and Dr. A. W. Palmer's change of address to 210 West Fifty-seventh Street. J. L. M.

VOL. XIV. MARCH, 1902. No. 2.

THE JOURNAL OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

EDITOR,
JOHN L. MOFFAT, M. D.

ASSOCIATE EDITOR,
A. W. PALMER, M. D.

EDITORIAL.

SURGICAL operations do not cure. By this we mean that the operation—including local treatments, except the application of drugs for their medicinal action—simply places that part of the body, and the parts influenced by it, in the most favorable condition to become healthy, either spontaneously or by further treatment. An exciting or contributing cause of disease or obstruction to recovery having been removed, the organic and functional activities —with rest and time—often bring about repair and ensuing health so consecutively to the operation that we naturally give this the credit; but commonly they require help—medicinal, dietetic, or hygienic—even if no further surgical intervention be necessary.

The temptation to feel that we are actually doing something tangible for our patient instead of merely giving directions that are to be carried out, combined with brilliancy of surgical technique and the, sometimes, more immediate results have led specialists, and more particularly exclusivists, to ignore other therapeutic resources.

No surgeon can afford to neglect the study and the application of medicinal therapeutics. Some years ago W. S. Searle reported an enucleation for round-celled sarcoma of the choroid in a man whose very alarming post-operative hæmorrhage showed him to be "a bleeder." The patient was given crotalus horridus and phosphorus; in

ten days sarcoma appeared in the orbit, but the hæmorrhage of its removal was much lessened. The medicines were continued off and on for a year, when a pedunculated tumor was removed from the scar without undue hæmorrhage, and there has never been a relapse.

The writer sent a young girl with acute mastoiditis into hospital for operation the next day, prescribing in the meantime capsicum. The following day there was so much improvement that operation was deferred, and a prompt recovery ensued without recourse to the knife.

Such experiences are common, but not so common as they should be. Note our society reports, the apparent poverty of medicinal resources among the members. When remedies are mentioned in paper or discussion, it is too frequently but a casual allusion. Their respective indications cannot be given too definitely or too repeatedly; hearing and reading them in societies and journals impresses them upon our memories and fosters the study of the materia medica.

CORRECTION.—A typographical error in the footnote on page 36 of our January number credits the tables to Swanzy's Diseases of the Ear; it should have read, of the Eye.

CONTRIBUTION TO THE STUDY OF SCLEROMA OF THE TRACHEA, WITH REMARKS ON THE VALUE OF THE SYSTEMATIC STUDY OF THAT DISEASE IN GENERAL.*

HERMAN VON SCHROETTER,

Doctor in Philosophy and Medicine; Emeritus Assistant of the Clinic of Vienna.

IN this article I attempt the study of scleroma in this rare location because the observations made by me for over three years have convinced me of the necessity to undertake extended researches in regard to this special disease.

In spite of the many medical works of great value, a scleroma constitutes, so to speak, an unknown chapter of general medicine; dermatologists and laryngologists alone have devoted sufficient study to it, as well as because it is a parasitic affection very characteristic from an anatomico-pathological point of view, which in the actual state of science deserves more attention, at least in certain European states where it is found (as in Russia, Austro-Hungary, in Prussia, in Italy), while isolated cases only have been recorded in Switzerland, France, Sweden, Holland, Belgium, England, and Turkey.

I have previously given a concise history of my case, but embrace this opportunity to give an extended one, in order to the better draw conclusions regarding the ætiology of the affection.

Clinical History. December 15, 1897. J. L., aged twenty-eight, born in Hungary, for nineteen years lived in southern Styria. At

* Translated by A. Wood, M. D., from *Annales des Maladies de l'Oreille, du Larynx, du Nez et du Pharynx.*

thirteen years of age she had an ill-defined painful swelling of the bridge of the nose, with bluish discoloration. The present condition commenced in the summer of 1896, when she had a cough of respiratory origin ; this continued intermittently several months, but had disappeared entirely before coming to our clinic. The cough, with severe dyspnœa and aphonia, reappeared in the summer of 1897. Parents healthy; no specific disease; menstruation regular. The patient had a child and had never miscarried. One brother a journeyman, twenty-nine years old, had suffered between four and five years from a serious dyspnœa which improved during the course of the year. When he walks rapidly he has dyspnœa and stridulous breathing. To the patient's knowledge no other member of her family was similarly affected. At different times she has been employed at house work, farming, and laundrying, the latter for the last few years.

The patient, of good constitution and robust appearance presents herself with strongly marked dyspnœic symptoms—a strident noise is perceived when she inhales or exhales. Pulse, 72, respiration 20; during inspiration the larynx is drawn backward. No tumefaction of the lymphatic glands; the veins of the neck are moderately distended. No pathology by examination of the internal organs, with the exception of the stenosed respiration which prolongs itself from the side of the lungs.

The laryngeal orifice is not modified any; neither are the two vocal cords, which are of a pure white without the least trace of catarrh, and move normally. Underneath the cords, separated by a fork of their inferior edge, can be distinguished some slightly projecting excrescences, red, superficially striated, symmetrically distributed, which the probe reveals to be soft. In the trachea, at the height of the fifth or sixth ring, is situated a tumor the shape of a button, originating from the left wall of which the base is formed by a red swelling sagittally placed. The cone, which considerably obstructs the orifice, has the color of yellowish wax, and its surface is shiny like grease. Over this tumor in the anterior portion of the trachea is perceived a cicatricial band with sharp edges of a whitish gray, hiding the view. The nares or naso-pharynx are absolutely normal.

In consequence of the simultaneous presence of a tumor and a cicatrix and of the absence of ulcerations on which to base the

existence of symmetrically arranged roughnesses of the true cords, I made the diagnosis of tracheal scleroma, although there was an absence of the characteristic odor and no cases of this disease have been known to occur in Styria.

In spite of the intense dyspnœa, which was only slightly relieved by inhalations and morphine, the patient was at first opposed to all surgical intervention. December 20 the breathing was so troublesome that intervention was accepted, and amelioration was immediate.

After having prepared for tracheotomy and having proceeded to the rapid cocainization of the patient I introduced a cutting forceps of suitable curvature, and at the first cut extirpated an important fragment of the portion of the tumor obliterating the orifice, almost without hæmorrhage. Respiration became more free, which considerably facilitated successive interventions. Afterwards with the curette I tore the cicatricial roughness in the neighborhood of its point of insertion to the right, which gave it the aspect of a floating slender white ribbon ; then making use of the same instrument and of the forceps, I lifted the greater part of the rest of the infiltration, and the fibrous band was at the same time movable. In the course of these manipulations the patient rejected some isolated soft particles.

In all there were cut three large fragments, measuring from six to eight millimeters in length by three to four millimeters in breadth, one of which presented a hard structure while the two others were more soft, like the consistency of adenoid tissue; these were preserved in alcohol and Müller's liquid to serve for later researches. Moreover I made cultures on gelatin and agar, which at the end of several days furnished me with a positive result.

Soon after the operation the patient felt relief, only her expectorations were slightly tinged with blood.

This good condition continued the following morning, so that I could proceed more easily and with greater precision. I again drew out three fragments, moderately soft and presenting no projection.

December 22.—Subjective condition good, no fever, no stridor on deep inspiration. . The trachea was dilated with a medium-sized English catheter.

December 23, A. M.—A No. 3 hard rubber sound was easily

introduced. P. M.—No. 4 sound caused pain. Evening, soreness and burning in trachea, with pains radiating from throat to the ears.

December 24.—Redness of the posterior extremity of the right vocal cord; less marked prominence of the swellings under the cord than two days before—suspension of dilatation, inhalations, and applications of ice. Respiration is altogether unimpeded.

December 25.—The alterations in the right vocal cord are more marked; above the posterior portion is seen a succulent red tumefaction. A new recourse is had to the soft sound, No. 24, which is introduced for ten minutes. At 8 P. M. unexpectedly, without any known reason, an attack of dyspnœa supervened which lasted a quarter of an hour, but which was quieted by the administration of 1 cg. of morphine, and the patient passed a quiet night. No fever. Larynx sensitive to pressure upon the right external region.

December 26.—The apparent traumatic lesions of the right vocal cord are still more clean, fiery red, and the tumefaction of the posterior portion covered over with a deposit of yellowish white. In spite of these symptoms, difficult to surmount in view of the state of the patient, first we employ dilatation for two days with soft catheters, then, more rapidly, with the hard rubber bougies, so that, by January 9, the swellings under the cord had become atrophied and the tissue prolonging directly the edge of the vocal cord had become smooth along the lateral wall of the trachea.

January 11.—No modifications of the left vocal cord; the posterior region of the right cord is again the seat of a whitish deposit. We remark a red pavement-like tumefaction joining the inferior border of the cricoid cartilage.

January 14.—The roughness visible for three days on the anterior tracheal wall has increased and has been transformed into a prominence slightly roughened, not covered with exudate. This having a suspicious look it was thought that it had something to do with a local infection, caused by the scleroma and following the intervention, therefore excised it on the spot with a forceps. Microscopic examination did not furnish any certain evidence to corroborate our suppositions. On account of this and other reasons I did not make any cultures.

The rest of the examination offered nothing in particular. Since January 16 the patient underwent daily introduction of hard rubber sounds, Nos. 8 and 9, without the least inconvenience. To obtain greater activity I occasionally employed sound No. 10, not so much to obtain dilatation as to endeavor by lateral pressure to destroy definitely the infectious process.

At the beginning of February the left swelling under the cord had totally disappeared; that on the right had in part. The patient was very well and clamored every day for her discharge.

She went out February 28, 1898. The mucous membrane at the bifurcation of the trachea was smooth, but that at the upper portion was thickened, making the rings indistinguishable.

There remained no swelling under the left cord and only a callous narrow ridge along the edge of the inferior aspect of the right cord; the color and motility of the true cords being absolutely normal and voice clear.

Although the patient was cautioned to return soon we did not see her again until November.

A perfect cure was not hoped for, but the condition reappeared even sooner than I expected. The anterior portion of the vocal cord is hypertrophied, there is a tumefaction with uneven surface extending from the commissure to the first ring of the trachea, under the left cord is a prominent swelling. The tumefaction in the anterior portion of the subglottic region was excised, and this was followed by the daily dilatation with a No. 10, for two or three weeks, which resulted in entire relief.

During the year 1899 she reported twice at clinic. At the time of latter visit, although she suffered no inconvenience, the excrescences had reappeared in the subcordal region and needed a suitable systematic course of treatment.

About December 15, 1900, she again returned, having had a cough for three months with expectoration of reddish yellow shreddy particles,—has been aphonic quite a while,—exertion causes dyspnœa and palpitation of the heart. The examination of the lungs and heart shows nothing abnormal. Tubercle bacilli are absent from the expectoration. For six months there has existed in the right submaxillary region a lymphatic gland the size of a small pigeon's egg, quite firm, mobile in appearance, which did not appear to have increased in size

lately ; a second gland, which developed in the same region in about eighteen months, retracted spontaneously without bringing on other troubles.

No other nasal or rhino-pharyngeal alteration was met, but the larynx is again the seat of severe mishaps. Entrance normal, inferior border of the left ventricle is moderately enlarged and very red at its anterior part, the left vocal cord is much hypertrophied and roughened, infiltrations are noticed in the region of the anterior circumference of the subglottic space. The left vocal cord is so invaded by masses of succulent tissue of a reddish gray that its structure cannot be recognized, except in the posterior portion under the form of an acute triangular field increased by a vascular injection.

The infiltration is especially pronounced in the middle of the glottis, while in the anterior part of the vocal cord it appears to draw together again, changes affecting the anterior laryngo-tracheal wall and reaching to the superior border of the fourth ring of the trachea. This infiltrated mass, in form of a blade of yellowish color, has an irregular, roughened surface, and penetrates the inferior portion in the form of a marked protuberance, standing out from above the top of the normal mucous parts. As was perceived later, the vegetations developed on the vocal cord were of soft consistence, while those of the anterior wall were harder. The right vocal cord, colored yellow, is not thickened and is moderately injected ; there is distinguished at the median part of its surface a firm band of tissue which stretches toward the anterior commissure ; but below no new infiltration has appeared.

The motility is restricted especially for the left vocal cord, so that during phonation a slit occupying the posterior tier of the glottis remains open. The mucous membrane on the posterior laryngeal wall is normal, finely closed in, and maintains itself well. In looking to the bottom of the trachea, the eye perceives to the left, at the height of the fifth and sixth tracheal rings, a slight thickening of the mucous membrane at the place where the infiltration had risen three years previously ; nothing abnormal in the other regions of the trachea. The trouble progressed then anew in the region of the glottis and the subglottic space, but the recrudescence was such that the alterations relieved in November, 1898, are masked by new modifications of

the left vocal cord and that the roughness does not exist on the right cord.

Altogether there is no relapse on the part of the trachea affected in December, 1897.

In two sittings I extirpated, with the écraseur and forceps, the infiltrations as radically as I could ; then I undertook the use of bougies, commencing with sound No. 7, continuing one week. Up to now the patient has refused to undergo extirpation of the gland situated under the right inferior maxillary angle ; an operation which could have excited a certain interest in point of view of ulterior therapeutics.

The patient left me breathing perfectly ; the left vocal cord, well shaped, had recovered its motility ; the voice, well ameliorated, was always hoarse, but she promises to return for examination at regular intervals.*

We now cast a glance upon the results of the *anatomic examination.* To judge of the divers phases of the researches the preparations have been colored by different procedures ; certain ones have been submitted to stains by the polychrome methyl blue or that of Loeffler, the thionine Gram's stain, also for the red, coloration by the method of Van Gieson and eosin hæmatoxylin. I observe that one arrives at the exact diagnosis with the polychrome methyl blue and the usual process of eosin hæmatoxylin ; by this last means the bacilli are very easily recognized, as several authors have already pointed out.

In what concerns the rôle of the protuberance in the form of a button in the trachea, it is seen that the tumor is the recent product of scleromatous processes, whilst but one granulous mass of lesser solidity occupied the first plane with their characteristic properties. We are in the presence of a network of loose fibers, at the base of which radiate the bands of isolated tissue, and around which is encountered a distinct vascularization.

Under the epithelium, which appears here only in rare places, deep down there is a zone of tissue of a reticulated

* After the completion of the operation I still treated the patient by the bougie. I saw her for last time February 28. Her condition is excellent—better than when she left my clinic, February 28, 1898. Her voice is clear.

aspect which is filled with large elements, cells of Mickulicz, containing bacilli.

The cells diminish in number toward the center of the tumor and are found in the successive lodging places of the dense infiltration of round cells, singly scattered. Here are small cells which predominate and appear more regular or grouped in compact islets. It is only exceptionally that there have been found toward the base some hyaline spheres staining clearly with aniline dyes, so that at the time of examination they retrocede completely, inversely to the other phenomena. These elements are insisted upon more energetically, in order to demonstrate that their presence assures the diagnosis of scleroma, which appears useful to confirm the existence of the sickness.

The body of the homogeneous cells of Mickulicz at first presents various forms of vacuoles, thereby taking on the image of a favus. Under the influence of an increasing hypertrophy and vesicular transformation, the cells atrophy and the bacilli penetrate simultaneously into the surrounding tissue. There always is (as Paltauf has held against Dittrich) a nucleus, fitted above against the wall or taking on a lamellar form, which is still distinguishable after the disappearance of remaining cellular parts. Then there does not exist nuclear necrosis, as certain authors believed, but, on the other hand, it seems admissible that their presence can pass unperceived, being given the vast dimension of a cell in the section.

As to whether the bacilli of scleroma stain or not by Gram, I hold the affirmative opinion after my experience. Pellizau, v. Marshalkon, and Polyak agree with Unna that these bodies are degenerated products of plasma cells. Bacilli were not found in their homogeneous bodies. So these products have no specific character, and compared with the cells of Mickulicz offer but a secondary interest for diagnosis.

The structure of the elastic fibers still needs to be studied in respect to the various products [and states] of the scleromatous processes; furthermore, Dr. E. v. Schroetter

has actually undertaken to establish a comparison between different cicatricial and inflammatory tumors in this respect.

The cartilaginous or osseous tumors (H. Chiari, O. Chiari, Stroganoff, Majewski), suspected at the end of a long sickness or after phenomena of the anterior region, did not exist; they do not develop, as a matter of fact, except in cases of diffuse inveterate lesions with participation of deep tissues.

To conclude, in regard to the bacteriological diagnosis I should draw attention to a procedure which has yielded me success in five or six cases. I make cultures not with the secretion, but with excised portions, arranging some to preserve these latter after their removal in the Bunsen flame, until the surface is slightly burned. Then I grasp them between the tongs of a heated forceps, separate the brown portions with a needle of platinum, and immediately deposit these cultures in the gelatin. By this method classical cultures can be rapidly preserved, both pure and demonstrable. By the aid of this direct procedure other and indirect methods are avoided.

Conclusive proofs of the upward growth of the scleroma have already been furnished by L. v. Schroetter and Paltauf, the latter having given us a work of critical anatomy very trustworthy, coinciding with the cases of Schroetter.

It can be understood in the case of the extension of the disease, especially in viewing the diversity of aspects affected by the various localizations following the epoch in which they were observed, that it often seems impossible to give a settled opinion as to the origin of the affection, but in my case the researches based on the examination of portions extirpated from the bottom of the trachea have demonstrated, in consideration of the existence of subglottic alterations of recent date and of the absence of every symptom in other places of election, the exactness of the hypothesis [given above and confirmed] according to which the disease ought to be defined according to the term of primitive tracheal scleroma of consecutive ascending evolution.

Here in the beginning, beside very clean cicatrices, there were met vegetations characteristic from an anatomical point of view, the removal of which was not followed by recurrence; it was only at the end of several months' rest that progressive manifestations in the laryngeal region and under the vocal cords appeared.

Therapeutics: Laryngo-fissure has been recommended by different authors as the best palliative.

As to myself, although it seems indicated to employ laryngo-fissure in cases of large masses of tissue rebellious to endo-laryngeal treatment, I myself hold to the therapeutic measure introduced by L. v. Schroetter with his two indications. With methodical dilatation and the action associated with lateral compression, we possess the best means of defense against a disease whose entity consists in the formation of such indurations as stenose the mucous passageway.

Judging from the large number of patients treated at our clinic I think I can assert that in no case was the practice of laryngo-fissure justified; and likewise, in grave cases with modifications of the caliber of the larynx and trachea, the graver phenomena have been overcome by dilatation. It will always be useful to precede this therapeutic measure by endo-laryngeal, endo-tracheal, and also bronchoscopic interventions. Finally, it must not be forgotten that there is no question at all in scleroma of a process of destructive ulceration having given place to cicatricial contraction. Besides, tracheotomy, which the patients have often undergone before coming to consult us, can be avoided, which fact cannot be despised, considering the troubles that frequently arise on the withdrawal of the cannula. If it is necessary to previously tracheotomize the patient it is advisable to employ tin bougies (Zümbolzen), which I allow to remain in the larynx for more than a week without changing; or I advise the wearing of tube cannulas, either constantly or intermittently.

I am not radically opposed to laryngo-fissure, but only wish to say that that procedure should not be the first thought of, but rather as a second resort.

Lateral compression also acts very efficaciously as a method of treatment of scleromatous infiltrations obstructing the nasal meatuses.

Dilatation both for the larynx and the trachea is insufficient in cases where the symptoms are so marked, when the patients consult us, that the extended infiltrations have provoked induration and hardening of the wall, followed by stenosis of the air passages descending as far as the bronchi. In these grave cases where the process from the start is extensive and is diffused deeply, dilatation does not allow further control of the progressive stenosis; it is possible also that an anterior or intercurrent scraping of scleromatous products does not then allow dilatation to exercise any but a temporary influence, the lesion having reached the deep layers of the mucous membrane and the perichondrium being attacked by the infiltration. In spite of deep tracheotomy and the prolonged wearing of the cannula these stenoses, accompanied and followed by pulmonary accidents, bring on death by chronic suffocation. The use of bougies according to the method of L. v. Schroetter, as we have said above in agreement with Dr. Majewski, cannot influence more than to a certain point the reduction of tissue; it cannot totally remove it and arrest the disease. Moreover, the sounds do not always reach a desirable depth.

A group of cases proves that the muco-perichrondrial covering of the trachea has become the seat of alterations serious from the point of view of the texture. For the treatment of this category of cases, I have employed for some time the insertion into the larynx, permanently or at least for a very long time, of flexible metallic sounds; sinking some as far as the tracheal bifurcation, or else drawing out according to what is desired to reach.

I have made some experiments with new spiral rods of aluminium or silver ("metallspiral rohre") of different models, even on patients not tracheotomized, in whom the position and orientation of instruments were controlled by the radiograph and fixed by the photograph.

There need not be too much fear of utilizing this procedure in cases of scleroma.

Against the circumscribed, localized stenoses of the trachea such as those in my observation, it seems to me that the introduction by the bronchoscopic passageway of short pieces of sound would not be contra-indicated.

Medical treatment: Iodide of potash, salicylic acid (Lang), injections of sublimate (Bellroth), etc., have proved useless so far. As to the sero-therapy inaugurated in 1895 by the Russian school (Pawlowsky) and renewed two years ago by Vymola, no definite judgment can be given.

After Pawlowsky, two methods merit consideration: on the one hand, by diminishing the group of bacteria with glycerin extracts to furnish a bactericidal condition to the tissue; on the other hand, to treat the disease by rhino-scleromatous serum, which can be destructive to the proliferation of bacilli.

After a great number of observations it could be concluded that the affection draws its origin from definite centers, where it holds an endemic sway and from there propagates itself. But the belief held now that scleroma is found in only certain countries or districts loses credence as fast as it is found in new territory; and each clinical case observed in a locality heretofore exempt inclines us to admit that scleroma, although often in sporadic form, may be found all over Europe.*

A chart which I am occupied with will assist in the comprehension of these facts and will explain them under a striking form.

* There is not in this monograph any reference to America nor isolated cases observed in Egypt or the East Indies.—TRANS.

SOME DANGERS OF IRITIS AND GLAUCOMA, WITH ILLUSTRATIVE CASES.

J. IVIMEY DOWLING, M. D., O. ET A. CHIR.,

Albany.

TO the average medical graduate the term iritis covers the complex symptoms: circumcorneal injection, sluggish and discolored iris, contracted pupil and, to his mind, possibly the gravest symptom of all, pain. As book knowledge goes this is good, and he feels competent to battle with all ocular inflammations, and restore sight to the blind, and prevent serious complications often resulting from "sore eyes."

It is left for the specialist to see the mistake of teaching that inculcates such parrotlike ideas to become a part of a physician's armamentarium.

Just so with glaucoma. The writer has known of students who, when asked "what is glaucoma?" replied, "Increased intra-ocular tension." The how, the why, the wherefore never have been a part of their knowledge, and until they have seen eyes become blind from glaucoma that were treated as facial neuralgia or as a severe conjuntivitis with pain, they do not realize what the effects of the intra-ocular tension are.

It is not within the power of all physicians to enjoy the privilege of post-graduate courses, in which they can become familiar with the various phases that iritis and glaucoma present, and it is with that in mind that the writer will attempt to picture two cases from his records, that, if remembered at the right moment, may be the means of saving some future patients their eyes.

The most pronounced cases of iritis are readily recognized, but some patients present a full-blown case of plastic iritis in which the symptoms have been so mild as to cause the person no worry, and only slight inconvenience, until the vision begins to be a trifle hazy; then anxiety takes the place of calm composure, and advice is sought. In a like manner such cases are occasionally treated by physicians who diagnose conjunctivitis and prescribe some simple eye wash, the plastic exudates, in the meantime, doing their work faithfully and well, until the sluggish iris becomes bound down to the lens capsule, the sight is impaired, and future total loss of vision becomes a possibility.

The above outcome being possible, what then are the really important symptoms to establish a diagnosis of iritis, irrespective of its variety? Experience shows that a sluggish iris combined with circumcorneal injection is oftentimes sufficient to base a diagnosis, and with these symptoms present careful examination will reveal a discoloration of the iris, as compared with the healthy eye.

If much pain is present or tenderness is exhibited on palpation in the ciliary region, involvement of the ciliary body may be determined. In this case the vision is likely impaired with a "floating cloud" or simply a "blurring."

Anterior synechiæ are readily determined by ophthalmoscopic examination, and this should be performed as rapidly as possible, because of the actual pain sometimes caused by the use of the ophthalmoscope in an acute diseased condition.

Synechiæ having been determined, the *sine qua non* of treatment is the use of atropin, the strength of the solution being determined by the age of patient and severity of the disease.

The strength of atropin sulphate may be from a one per cent. solution to the use of the actual crystal of the crude drug, in the latter instance selecting a minute particle and allowing it to dissolve in the conjunctival sac. In this

event cocain hydrochlorate, two per cent. solution, should first be instilled, for the purpose of allaying pain caused by the crude atropin and aiding the cycloplegic effects of the drug. Inflammatory conditions of the iris produce a tolerance to the use of atropin, but although an absolute essential in the treatment of iritis, it is a dangerous drug, and no matter what strength is used the physician should watch carefully for its injurious effects; if dryness of the naso-pharynx appears, together with the typical scarlatiniform rash and symptoms of acute mental unbalance, then the drug should be withdrawn, and strong black coffee given frequently and hypodermatic injections of morphin sulphate used at such intervals as to control the acquired drug disease.

Glaucoma is sometimes caused by the unwise use of mydriatics, and extra care should be observed in all cases whose age is thirty-five or over.

After the use of atropin the selected remedy should be prescribed. Probably the most valuable one, to aid in the control of plastic exudates, is mercurius dulcis given in one-tenth grain doses every hour until its laxative effects are exhibited, after that less often.*

Cases in which anterior synechiæ have formed seem to respond more readily when the atropin and mercurius dulcis are used conjointly.

To illustrate the ease with which an iritis may be confounded with a conjunctivitis, one case of a number will suffice.

The patient was a physician, and the reason this case is cited is to illustrate the possibility of a thoroughly educated doctor being led astray by the seeming mildness of the inflammation. Having suffered with previous conjunctivitis he considered the onset of a "conjunctival irritation" in the left eye as only a "pink eye," and treated it accordingly. His symptoms might be classed as negative, for, with the exception of the circumcorneal injection, there was little to judge by, except from an examina-

* The editor has produced slight salivation with one-grain tablets of the first decimal of mercurius dulcis given three times a day for a week.

tion minutely made, in which focal illumination and the ophthalmoscope played their respective parts.

Treatment for a conjunctivitis proving unavailing the writer was consulted, and elicited the fact that after the use of the eyes there was some blurring and photophobia ; closer search showed a discolored iris and sluggish pupil, and under ophthalmoscopic examination five distinct synechiæ were discovered. A one per cent. solution of atropin sulphate was instilled frequently; also a one per cent. solution of silver nitrate, used because of a history of possible gonorrhœal infection.

The next morning the pupil was only irregularly dilated, so more drastic measures were employed. These consisted in the use of the crystal of atropin, preceding its use with cocain hydrochlorate and the internal use of mercurius dulcis, gr. 1/10 hourly. Fortunately twenty-four hours of active treatment resulted in the tearing away of the iris from its acquired anchorages, and a round, widely dilated pupil resulted. Then the occasional use of a one per cent. solution of atropin was sufficient to keep the iris dilated until a cure was effected. Rhus. tox. 3x aided materially in clearing up the condition after full dilatation had been secured.

Three weeks later an examination for refractive error was made with the following result :

O. D. $\frac{15}{20}$ (??) — 0. 62 D. cyl. axis 180 = $\frac{15}{15}$
O. S. $\frac{15}{30}$ — 1. D. cyl. axis 180 = $\frac{15}{15}$

The rapid cure in this instance was aided by the excellent general health, there being no constitutional reason for the existing iritis.

Many are the treatments advertised for the cure of every affection of the eyes. From the simplest strain to the gravest inflammatory condition a cure is promised, providing regular correspondence is conducted with the mental genius who combines the power of clairvoyant and mental telepathist together with the ability of the most brilliant physician, no matter what his specialty. The proper fee having been inclosed the suffering patient is made the happy recipient of acknowledgments, in which he

learns that his disease is rapidly disappearing. This he is glad to believe even though the so-called facial neuralgia persists, and the vision rapidly lessens, or other severe symptoms appear. Inquiring the reason, he learns that all these symptoms, which are grave to the educated physician, are but "expressions of the disease" whereby it is "running out."

It would seem improbable that such could be the case in this enlightened century, but the above is taken from the author's records almost without a change, and shows the confidence an honest woman is willing to show a man who will promise a cure.

The patient, Mrs. S., seventy-five years of age, consulted the writer January 2, 1901, giving the above history of treatment for a so-called facial neuralgia, and also stating that she had had her eyeglasses changed a short time before. They did not seem to fit, so she was told to wear them whenever she used the eyes, and the eyes would adjust themselves to the glasses. Failing to do so, she then consulted the remarkable genius of the West, who treated by mail. After his promises proved unavailing, she called for a thorough examination; at which time the pupil of the left eye was irregularly and widely dilated, considerable circumcorneal injection, tension + 3, vision nil, and pain intolerable. The ophthalmoscope showed deep glaucomatous cupping. The right eye presented a somewhat dilated and sluggish pupil, but no positive symptoms; the field of vision being normal and tension good.

In this case operation was advised at once. Owing to a necessary delay, eserin sulphate solution was used for twenty-four hours, but without relieving symptoms. The next day an iridectomy was performed, a large section being removed from the upper central portion of the iris. The symptoms remaining unrelieved, an enucleation was performed later.

After this latter operation all pain subsided, and the remaining eye has since continued serviceable and sound.

Just one year from time of operation the remaining eye presents a good healthy appearance, free from pain, tension normal, the field of vision for white is slightly contracted on the temporal side. Occasionally she has some right-sided pains

centering about the eye, which yield to spigelia 3x internally and eserin sulphate used as a myotic.

This patient would be a good one to operate, according to the plan of De Schweinitz, but the task is to secure consent, and again the question arises whether it is better to watch and wait, or to subject the patient to the dangers of an iridectomy in an approximately sound eye.

The expectant plan is the one that is being followed; for her age and general health are important items to be considered.

James Russell Lowell has said: "There's a deal o' solid kicking in the meekest looking mule." The application is evident to any experienced physician, and as a corollary to the quotation, thoroughness in examination should be our watchword.

223 State Street.

SECTION OF THE CORNEA FOR CATARACT OPERATION.*

DR. E. M. HOCQUARD.

MICROSCOPICAL examination of human corneæ in eight cases of cataract extraction, varying in time from a few hours to twenty years after section, shows several interesting results.

First. The incision which in the living subject appears exactly on the corneal limbus in reality is in the clear tissue of the cornea. The distance of this section from the ciliary body is at least two millimeters. The illusion which leads the operator to believe that his incision is precisely at the corneo-scleral junction is due to the fact that the transparent portion of the cornea does not represent its entire extent. The conjunctiva pushes itself over from one and one-half to two millimeters beyond the anterior border of the sclerotic, so that the transparent portion of the cornea is surrounded by an opaque ring, two millimeters wide. Therefore, to reach the limit of the corneal tissue the incision must be carried two millimeters beyond the apparent edge. In eyes which have a history of previous inflammatory affections of the conjunctiva, this ring of tissue may be even wider, and require a further distance to reach the true corneal limit.

Second. The result desired by most operators, to obtain an oblique incision through the corneal tissue, is seldom obtained. No matter how skillful the operator, the post-mortem section is never rectilinear. The change in direc-

* Translated from December *Annales d'Oculistique*, by E. Rodney Fiske, M. D., of Brooklyn.

tion is the result of raising the knife at the end of the incision, making either a curved or an abrupt change in direction. It may also be a broken line, the latter the result of an unsteady hand.

Third. The process of cicatrization is the same as in the experiments made on the sheep. This has been made possible by the author's study of this process in the eye of a patient who died of apoplexy less than thirty-six hours after cataract extraction. The intra-corneal lacunæ open, thus relieving pressure at the site of the incision. The lacunæ, deep and superficial, curve toward the incision.

A provisional union of the parts takes place within thirty-six hours after operation. This is brought about by the primary exudate upon the cut surfaces. This is very easily broken up, as the manipulations necessary for enucleation from the cadaver were sufficient to destroy this reunion of the surfaces.

Where the operation has included a conjunctival flap to cover the corneal incision after closure of the corneal wound, the conjunctival surface is strongly united after three days, while the deep corneal tissue already shows fibrous bands of adhesion, although these latter are hardly stronger than the provisional exudate of thirty-six hours.

This slight cicatrization, however, is strong enough to permit the refilling of the aqueous chamber, and thus restores the shape of the cornea and promotes its normal circulation.

SYMPOSIUM.

The Relative Amount of Asthenopia in this Country and in Europe.

FRANK ALLPORT: The following, in *American Medicine*, October 12, 1901, fully expresses my firm convictions: "There are probably more of the severe forms abroad, and that our national habits are a blessing rather than not. That American ophthalmologists and habits bring about the prevention among us of the sequels of uncorrected asthenopia; that is to say, of the huge mass of inflammatory and surgical diseases of the eye which make up the clinics and practices of our foreign colleagues. There are, we believe, many American oculists who have noted a continuous and rapid decline in the number of these cases among us, because we prevent them by proper glasses, while abroad proper glasses are almost unknown, and hence the prolific production of eye strain and inflammations, which soon demand the surgeon."

FRANK M. CHISHOLM: I am inclined to concur in Dr. Howe's belief (*Am. J. of Oph.*, Aug., 1901) that the severer forms of asthenopia are found in this country, due to the higher tension of life, and we may say national habits, which affect both nervous and digestive systems. The quotation from *American Medicine*, that careful refraction is bringing about a prevention of the sequels of uncorrected asthenopia, may be very true, but your question refers to asthenopia, and not to diseased conditions, and there is undoubtedly more complaint from eye strain with its usual manifestations of headache, pain in eyes, congested condition of eyes, etc., in this country than abroad.

SAYER HASBROUCK: I agree with Dr. Howe.

DUNBAR ROY: In regard to the relative amount of asthenopia in this country and Europe, I could never agree with the state-

ment in *American Medicine*, for my own observation leads me to coincide with the views as expressed by Dr. Howe. I believe that no people in the world have as many symptoms of asthenopia as American people, and this I attribute to "their national habits and mode of living," and to the prevalence of ophthalmologists who find no ailment in the human system outside of asthenopia, and who continually overeducate the laity as to the relative importance of this symptom. Good square meals and plenty of healthy outdoor exercise would lessen materially the income of American opticians.

GEO. A. SHEPARD: I believe with Dr. Gould that the American eye is organically stronger than the European, but, owing to the lack of much reserve nervous energy in our younger generation, asthenopic symptoms are more common and slight refractive and muscular defects need correction.

M. A. BARNDT: I believe my observation will bear me out in saying that the amount of asthenopia is greater abroad than in this country, due to the fact that neglect, ignorance, and improperly fitted glasses are more prevalent than in this country. Where the conditions are improved, I find a decrease in the clinical cases. Where the asthenopic cases are most numerous in this country, a large percentage can be traced to improper and high living.

JAMES A. SPALDING: In regard to asthenopia at home and abroad, it is my opinion that the two papers quoted tend to mislead the actual question to be discussed. For at home we correct the errors and abroad they do not, but they treat them with innumerable remedies—oftentimes without result. There is no question in my mind that our country produces more cases of eye strain than any other, because we are greater slaves to the newspapers and to solitary reading by bad light. Most newspapers are badly printed and too hastily read. Most houses have poor illumination, though better than of old. The great fault lies in the illumination being too far from the work. General conversation also, which is a rest to the eyes, is practically unknown at home. This is replaced by too prolonged use of the eyes. Our great merit consists in discovering the fact that the proper fitting of lenses tends to reduce inflammatory

conditions in and about the eyes and their appendages and protects the eyelids, eyelashes, and tear passages.

Clarence R. Dufour: I think we find less asthenopia of the severe forms in this country than in Europe, especially of recent years, on account of more attention being paid to the eyes of the school children ; also to the fact that the public have been educated to the fact that when pain in the head or eyes do does not yield to medical treatment, they should consult an oculist or optician. The general physician is on the alert for symptoms of eye strain and advises the service of an oculist before the condition becomes serious. In an experience of many years in a large out door eye- and ear-service, I have found severe forms of asthenopia rare, partly owing to the fact that these patients do not use their eyes to the same extent as do the better class, although many of them are school children, mechanics, *et al.* The school boards of many of our cities, through the efforts of the local medical societies, have adopted the plan of examination of the eyes of all children at the beginning of the school year, and when found below a standard advise their parents to have the trouble corrected. Another factor is that our people have more comfortable eyes because they live in a better manner, have better hygienic surroundings as a rule, as compared to the manner of living abroad. I think that if the school boards of all cities and towns would examine the eyes of the children at the beginning of the school year, and maintain a supervision over them, and overcome the prejudice that exists with the parents of their children wearing glasses, asthenopia would be a thing of the past.

William R. King : I have no way of answering from my own knowledge as regards cases in Europe at present writing, but would be inclined to think that both sides of the controversy contain some meat. I believe that our habits and national characteristics, together with our advances in education and general civilization, have and are increasing the cases of asthenopia in this country, proportionately at least, as against most European countries. In Germany, with her compulsory educational system, there have been for years a vast army of wearers of glasses. This country, especially in our larger cities, has followed somewhat in the footsteps of Germany, and almost the same proportion of glasses are seen on the streets of Boston, Philadelphia, and several other

educational and literary centers as are seen in Berlin, Dresden, Heidelberg, or Leipsic. However, as has been intimated, I believe we do take better care of asthenopic cases which present themselves than is the case in Europe; and largely because of our more careful and correct adaptation of lenses and prisms, both simple and compound.

SOCIETIES.

Abstracts, with discussions, of the more interesting papers presented at recent meetings.

NEW YORK STATE HOMŒOPATHIC MEDICAL SOCIETY. Fiftieth Annual Meeting, Albany, February 11 and 12, 1902.

The following officers were elected unanimously :

President, John L. Moffat, Brooklyn; First Vice President, M. C. Ashley, Middletown; Second Vice President, Bukk G. Carleton, New York City; Third Vice President, Charles A. Gwynn, Auburn; Secretary, DeWitt G. Wilcox, Buffalo; Treasurer, Frederick J. Cox, Albany; Necrologist, W. S. Garnsey, Gloversville; Counsel, Frederick E. Wadhams, Albany.

BUREAU OF LARYNGOLOGY AND RHINOLOGY.

F. PARK LEWIS of Buffalo read a valuable paper on *The Relation of Lymphoid Hypertrophy to the General System.* He first spoke of the nature and functions of the lymph vessels and the effect of adenoid enlargements crowding against them. He recalled the anatomical relations of the brain and throat, and showed how deep general disturbances were possibly connected with changes in the pituitary body, drawing the conclusion that changes affecting nearly adjacent and similar tissues might produce equally important, although different, results affecting remote parts of the system. Changes of structure follow prolonged changes of function, and functional disturbances produced by hypertrophies of lymphoid tissues are followed in time by absolute changes of structure. In growing children arrested development in some form occurs in place of the structural changes in the adult. The writer spoke of the typical adenoid face, the form of skull, the crowded teeth, and

said that the conclusion seemed to have been that suctional breathing through the mouth (enforced by the obstruction of the nasal passages by adenoid growths), while the structure was yet plastic, had ended in this conformation.

This theory he considered untenable and presented as more probable an entirely reverse theory, that the narrow face and skull and crowded jaws, produced by any or several causes, results in obstruction of the lymph passages and all the unfortunate phenomena following.

The probability that adenoids left to themselves atrophy at adolescence Dr. Lewis also denied, saying that he had removed adenoids from a man of thirty-five, and explaining that the normal enlargement of the vault of the pharynx lifts the enlarged tissue so that it is no longer obvious, though it may be producing disastrous changes.

He mentioned various weaknesses of the ocular muscles, strabismus, asthenopia, and other disturbances of the eyes, as well as of the ears, evading all ordinary methods of treatment, but disappearing upon the removal of adenoids from the throat.

In conclusion, he urged upon the profession not merely the necessity of examinations for and removal of adenoids, but the necessity for insisting upon the dental surgeon taking the most modern and approved methods of changing abnormally shaped jaws of children before too much havoc should be wrought.

The paper was illustrated by anatomical sections and casts of abnormally crowded jaws, which had been coincident with hypertrophies of the lymphoid tissues. One showed a bit of bad dentistry: the teeth which had been crowded (that seemed to be crowding) were extracted at a period in the boy's history when, had they been retained and orthodentia performed—expanding the jaw—the natural contour of the face would have been preserved, leaving the boy his full complement of teeth and, as you will see if I am right in my premises, the boy's general condition would have been greatly improved.

Another specimen showed to a very marked degree the enormously high palate. Only when the head was thrown back and light thrown in could one see the roof, which was so high and so very narrow that it was just barely possible to get one's finger in the narrow arch.

Dr. Lewis supplemented his paper by saying: If the sides of

the face are squeezed together when the parts are in a plastic condition, the roof of the mouth is pressed up: the jaws are so narrowed that the teeth have no room for their proper irruption, and therefore come out in front and back of the normal row. The septum of the nose is bent by the upward pressure of the bony palate, and we have then laid the foundation of all the disturbances of the nose that we find in after life. Kope reports in one of the French journals that he has operated on fifty cases of children a few days after birth, which demonstrates that we are dealing with a congenital condition. I have seen cases of the kind myself.

I have frequently noted that the line of heredity seems to be through the mother, the male children taking the contour of face of the mother in these instances; this leads me to the surmise that the mother's narrow pelvis might give rise to this narrow-shaped head.

A writer to whom I refer in one of my footnotes, found, in thirty-eight fatal cases of diphtheria, twenty in which adenoids were not present. It has been my experience for a long time that cases of scarlet fever and measles which result in otitis are those in which adenoids are present in the throat; the additional inflammation in the throat of any of our eruptive diseases predisposes to an extension of inflammation to the middle ear. Of course, the inevitable conclusion is the wisdom of removing these obstructions before inflammatory diseases of the throat occur.

Removal of a small post-nasal adenoid has repeatedly been a potent factor in the cure of follicular conjunctivitis as well as of muscular imbalance and asthenopic squint. Ziem of Copenhagen sewed up one nostril in young rabbits, with the effect of checking development of the corresponding eye.

Dr. Moffat : It is illogical for the rhinologist who discovers and makes a point of removing adenoids to think that they are the cause of such bony changes. Dr. Lewis has made a very important suggestion ; one that we have not heard the last of. In my opinion otitic grip is in many cases determined to be otitic by adenoids. It is an old story with us all that we are especially apprehensive of diphtheria in a child with a very large tonsils and with adenoids. Most, if not all, of my cases of otitic grip have had large tonsils.

Dr. Nickelson : Would not compression with the forceps in delivery cause the same deformity of the head as the contracted pelvis ?

Dr. Lewis : Undoubtedly.

Catarrhal Preventives, Fred D. Lewis of Buffalo.

Among other things Dr. Lewis said a pair of insoles is a better preventive than a chest protector. Overeating reacts detrimentally upon the respiratory mucosa.

Dr. Schenck : When the cold bath with friction does not prevent the recurrence of rhinitis or laryngitis, bathe successive parts of the body and limbs alternately with water extremely warm and as cold as can be secured, followed by rubbing briskly until the body is thoroughly warm and the blood is drawn to the surface. I hardly agree with Dr. Lewis that it makes no difference how cold the water is; the bath is much more beneficial at 55° or lower, if followed by thorough friction, than at a higher temperature.

A. W. Palmer: I agree with the writer that there are very few of the laity, and even of the physicians, that consider catching cold in the head so important a condition as it really is ; they do not consider it as a real disease. If it were not for the prevalent idea that a cold in the head will wear itself out in a few days, the specialist would not have so many cases to operate upon. Repeated nasal coryzas cause the hypertrophies that are so deleterious, and also cause the chronic catarrhal condition that the doctor speaks of ; they also predispose to ozæna. I would emphasize Dr. Lewis's point about overdressing. Nowadays most of us keep our houses at summer temperature in winter, yet wear winter clothing while indoors. This is a more prolific cause of colds than is the open air for which people make a change in their clothing.

Dr. Moffat: The prevalent stiff high collar is deleterious to the circulation in the head and is responsible for headaches and ocular troubles, and doubtless aggravates those of the ear and nose. Patients think that because one can see a little space between the skin and collar that the collar is not tight or

harmful. I need not remind you all that it is the pressure of the edges of the collar upon the superficial circulation, aggravated by the chin when the head is flexed, as in reading and writing, that is doing most of the harm. I ask these girls if they have scrofulous necks like Queen Alexandra, who started the fashion.

BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

C. H. HELFRICH of New York read a paper, entitled *The Eye Lesions Consequent upon Measles*, in which he pointed to the marked affinity of this disease for the structures of the eye. It may affect all the ocular tissues, from the skin of the lids to the deeper structures like the optic nerve. The most characteristic eye complication is catarrhal conjunctivitis, which usually runs a simple course, but occasionally assumes a diphtheritic or blenorrhœic character endangering the integrity of the cornea. The dyscrasia produced by the general disease is the cause of a number of eye sequelæ, the most frequent of which is conjunctivitis phlyctenularis, which in strenuous subjects especially is often of an aggravated character with severe blepharospasm, necessitating expert manipulation to separate the lids in order to inspect the cornea and note the presence of complicating ulcers. A number of rarer and most grave sequels and concomitants were mentioned, the most interesting of which was blindness from neuritis. The recorded cases of neuritis were divisible into intra-ocular and retrobulbar.

The cases coming under the latter division seemed to have their seat in the usual center in the occipital lobe, as the pupillary reflex was still intact, despite the blindness, and in one instance a post-mortem revealed a lesion in this situation. That there follows a subsequent inflammation of the nerve is made apparent by some slight ophthalmoscopic signs visible in the eye at a later stage of the trouble. The cases of intra-ocular neuritis were thought to be dependent upon localized meningitis in the vicinity of the chiasm. The prognosis in these cases is usually grave, though recoveries of sight have been noted in some instances.

(*To be continued.*)

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY; Seventh Annual Meeting, New York, 1901.—(Continued.)

A Few Remarks on a Generally Unrecognized Ear Disease.

H. A. ALDERTON of Brooklyn said that the mucous form of otitis occurs more frequently in adults than in children, and often after an attack of grip. There is often little or no pain, but a stuffy feeling in the ear and a diminution of hearing. Crackling sounds, on blowing the nose or swallowing, are not so common as in the serous variety. Tinnitus is apt to be severe, and there might be vertiginous attacks. Inspection shows but little congestion; the membrane is in its normal position, though lacking luster and having a dull gray color. There is a dull-looking area of hyperæmia along the handle of the malleus and at the periphery of the drum membrane. In most cases the tube is obstructed. There is a noticeable disproportion between the power to hear a whisper and the spoken voice. The upper tone limit is not much affected. The pulse and temperature are practically normal. The condition might last from a few weeks to a number of years. Inflation of the tympanum improves the hearing. On incision of the tympanic membrane there may be no discharge, but on inflation a stringy, tenacious discharge makes its appearance in the canal, and the hearing is immediately greatly improved. Douching through the external canal has seemed, in his experience, to do only harm. The treatment par excellence is incision and evacuation of the tympanum, with measures directed toward improving the condition of the naso-pharynx. The drum membrane is often healed at the second dressing.

Tuberculous Otitis Media, Mastoiditis, and Meningitis in an Otherwise Apparently Healthy Adult.

J. F. MCCAW of Watertown, N. Y., reported a case.

The experience of most observers seemed to indicate that primary tuberculosis of the ear occurs infrequently.

DR. GOLDSTEIN of St. Louis reported three cases, observed by him during the past ten years, of mastoiditis which might possibly be considered primary.

J. F. McKernon of New York reported a case; packing the ear with gauze soaked in the valerianate of guaiacol seemed to be the only thing that provoked even temporary healing.

The Schwartz-Stacke Operation for Chronic Suppurative Otitis Media; Re-formation of the Tympanic Membrane; Secondary Myringectomy; Improved Hearing.

M. A. Lederman of New York: The presence of streptococci or of pneumococci certainly would indicate an operation. Mrs. X. for eight years had suffered from headaches on the right side, and for a long time there had been a discharge from the ear on that side. On October 31 the Schwartz operation was done. On the sixth day union occurred; the wound healed over in six weeks under enzymol dressings. Last January tenderness over the mastoid returned, and examination showed a secondary membrane. This was removed, and a small portion of granulation tissue was curetted from the upper part of the attic. The patient suffered two days from a severe attack of vertigo, associated at first with very marked projectile vomiting. A good result followed.

A Case of Sinus Disease.

Edward B. Dench of New York presented a patient upon whom he had operated about six weeks ago for acute mastoiditis. There had been an unusual elevation of temperature after the operation, and on the fourth day he had ligated the internal jugular vein and had found a softened clot. Since then recovery had been uninterrupted.

Symposium on Diseases of the Faucial Tonsil and Peritonsillar Tissue.

Anatomy and Physiology.

Norval H. Pierce of Chicago: The supratonsillar space should always be explored in examining the pharynx. Little is known of the function of the tonsil, though recent experiments seem to indicate that it has the same office as the ductless glands in the body.

Acute Lacunar Inflammation.

M. R. Ward, of Pittsburg: The essential lesion is a catarrhal inflammation of the lacunæ or crypts. Its infectious nature is

no longer in doubt, but its specific organism has not yet been isolated. Intranasal and pharyngeal operations are frequently associated with acute lacunar inflammation, no matter how carefully they have been done.

Mycosis.

Arthur G. Root of Albany said that pharyngomycosis is a rather uncommon affection. Leptothrix and the bacillus follicularis are the organisms usually found in the deposits. The process is a slow one and presents only objective signs. Mycosis is often mistaken for a follicular tonsilitis. Small pearly-white tufts would be found dotted over the surface, and on attempting to remove them it would be noted that they were embedded deeply in the tissues. If the disease were of long standing these tufts would occasionally be found run together. He was not one of those who look upon mycosis as a pretubercular condition. Aside from building up the general health, the essential thing in the treatment is to destroy the fungous growth by the application of various astringents and antiseptics. It is still better to remove the tissue by the curette, forceps, and tonsillotome.

Tuberculosis.

Cornelius G. Coakley of New York: The frequency of tuberculosis has been underestimated. One observer found in a series of cases forty-eight per cent. of tonsils tubercular. According to his own clinical experience, this percentage seemed much too high. The pillars of the fauces and the posterior pharyngeal wall are often involved. The tubercular ulcers are usually irregular in outline, and show a tendency to coalesce. He has found formalin a useful disinfectant in such cases. It has been demonstrated that tubercle bacilli may pass through unbroken epithelium of the tonsil. Some cases of primary tuberculosis of the tonsil present nothing in their appearance different from that of an ordinary hypertrophy of the tonsil.

Jonathan Wright of Brooklyn opened the general discussion. The structure of the normal faucial tonsil is practically the same as that of the lymph glands. Long ago Huxley made the statement that the tonsil is a diverticulum of the pharynx around which the lymph glands were thrown. The theory of phagocytosis has been greatly modified of late, until

now it is believed that it is the juice of the lymph cells which serves to protect the body from invasion. The protective influence of lymphoid tissue has been thrown around the diverticula found at various mucous places in the removal ; this was probably because in these clefts bacteria would find easy lodgment.

Fred C. Cobb of Boston : Most cases of acute peritonsillar abscess can be traced to a prior acute tonsilitis, though in many instances of abscess, on first coming under observation, there is no sign of the precedent tonsilitis. The tendency now is to make the incision between the pillars rather than in the classical position in the anterior pillar. By cutting in the direction of the pillar one cuts in the direction in which the pus is going, and it is more easily reached. More than twenty per cent. will close if the incision is made in the old, so-called, point of election. In lancing peritonsillar abscesses, if the pus is in the anterior pillar the pillar will be slanted forward and the posterior pillar backward, and vice versa; hence, one could decide whether to lance through the anterior or posterior pillar or through the supratonsillar fossa. The speaker had taken measurements of the depth of the average peritonsillar abscess cavity from the edge of the anterior pillar, and found it to be one and an eighth inches. If, therefore, the knife penetrated three-fourths of an inch the operator might feel safe.

Lewis A. Coffin of New York indorsed Dr. Hartz regarding the ætiology of peritonsillar suppuration. He was inclined to think the good effect of guaiacol was, after all, chiefly due to its astringency. Astringent applications cause the ejection of the occluding plugs, and this leads to a prompt cure.

Price Brown of Toronto thinks that peritonsillar abscesses nearly always occur as an extension from the tonsil, and second cases of tonsillar abscess, occurring independently of rheumatism, show additional enlargement of the tonsil after each attack, indicating in the latter that the inflammation is tonsillar and not peritonsillar.

M. D. Lederman reported a case which had presented symptoms like those of the grip, and the appearance of the throat had been that of a pseudomembranous inflammation. Under the

microscope there were colonies of staphylococci. Within two days after the subsidence of this membranous affection all of the joints of the body had become involved, but relief had been quickly afforded by antirheumatic treatment. He had seen a case in which the tonsil had been incised seven times for a peritonsillitis; the knife had to be carried directly backward for an inch and a half before pus could be reached.

V. Freudenthal of New York: Mucus dropping down into the nasopharynx and drying acts as a foreign body and causes an irritation, which predisposes to lacunar inflammation.

M. A. Goldstein of St. Louis suggested the possibility of there being but two avenues of infection. There are two forms of peritonsillar infection having separate clinical characteristics. The peritonsillar form is confined practically to the anterior pillar; the other is a supratonsillar abscess. Is it not possible for a form of peritonsillar abscess which is so closely associated with the tonsil and so adjacent to the anterior pillar to be a direct tonsillar infection, and the other an infection carried by the lymph channels? He believes it possible to differentiate these two forms.

Multiple Cerebellar Abscess; Sigmoid Sinus Thrombosis.

J. E. Sheppard of Brooklyn presented a cerebellum and dura showing a multiple cerebellar abscess and a sinus thrombosis.

A Year's Experience in the Treatment of Stricture of the Eustachian Tube by means of the Electric Bougie, thirty-three cases.

Thomas J. Harris of New York: In the majority of cases a silver catheter wound with thin rubber had been used with, generally, a current of not more than 3 ma. The current was not increased as soon as there was any bubbling in the ear, and the negative application of the current was not continued for more than five minutes. Inflation was not practiced afterward. The strictures were successfully passed in all but one case. He was convinced that the electrical current, even when properly used, is capable of causing adhesions of the tube, and, according to his experience, the effect of the current in relaxing the stricture is not permanent. In spite of aseptic precautions suppuration of the ear followed in three instances; electrolysis

is not free from danger. This treatment should be used after, and not before, other methods; it is questionable if these strictures were really fibrous.

Wendell C. Phillips of New York believes it is a useful method of treating strictures of the Eustachian tube, but it is not a cure-all; he does not believe the electricity has any permanent effect on the stricture as applied in these cases. Tinnitus is certainly very much relieved by electrolysis of the Eustachian tube. There is some danger of these bougies breaking, even in experienced hands.

G. B. McAuliffe of New York stated that the action is not truly electrolytic, but a tonic one on the muscular and vascular portions of the tube; that the difference in the amount of bubbling depends on the amount of moisture present in the tube; that it is not practicable to melt a stricture without substituting another scar surface. He asked if the electrolytic action had ever been done in sight on the surface of the body.

W. P. Brandegee of New York has noticed a distinct and permanent result in nearly every case at the New York Eye and Ear Infirmary. The tactile sensation conveyed to the operator in the passage of the electric bougie should be sufficient to warn him when he has reached the tympanum. Often the stricture is not met with until one reaches the mouth of the tympanic cavity. In the last two or three years they have used the bougie in over 150 cases, and in not a single one has there been suppuration. The instruments are all carefully boiled. He was not aware that he had ever made a false passage, and thought there was much more danger of such an occurrence with the ordinary bougie, because of the force used.

C. Dunbar Roy of Atlanta has been impressed with the part played by the personal equation; in the first few months he had had rather poor results; in the last four months the results have been far better. He has employed the electric bougie entirely in private practice, and has obtained far better results than by any other method. He uses the chloride of silver battery and five milliamperes of current. He never uses anything but a solid silver catheter that he can bend to fit the nasopharynx and make enter the tube. With a hard rubber catheter he never felt sure

of the direction and location of the instrument. In some cases he had obtained excellent results with a whalebone bougie, but when this failed he resorted to the electric bougie. The amount of pain attendant upon the treatment varied considerably in different individuals. He never observed any infection or any irritation of the drum. In his ten cases the results have been most satisfactory.

J. A. KENEFICK of New York said that the condition of the tube could be determined in most cases by the use of the otoscope under inflation. When the obstruction was situated near the tympanic orifice one was apt to be misled by the sound striking this obstruction instead of the drum. The sensation of freedom imparted to the bougie and a change in facial expression of the patient show when the bougie enters this cavity, this region being much more sensitive than the tube.

A. B. DUEL of New York: A more permanent opening can be accomplished more quickly by this method than by any other. It is not a mechanical effect, as is the case with ordinary bougies.

EDWARD B. DENCH agreed pretty well with Dr. Harris. The method is perfectly safe, if practiced according to the principles of aseptic surgery. He has used the ordinary bougie in grip cases, and has had suppuration. The choice of the instrument must vary with the individual operator. When he could not get the ordinary instrument through he would use the electrolytic method; until then he perhaps would not try it. He has had these obstructions recur after the use of the simple bougie, and has seen cases recur after the prolonged use of the electric bougie. A very slight difference in the curve given to the bougie would explain the varying difficulty experienced on different days in passing the instrument. Air might get through, and yet the instrument would not take the abrupt turn. Again, on certain days the mucous membrane of the tube would be more swollen than on others, and that too in certain portions of the tube. Mention was made of a case of partial occlusion of the external auditory meatus, in which dilatation by electrolysis had been tried after division with a knife. Although the conditions seemed favorable, and the operation could be actually witnessed, electrolysis had accomplished nothing.

N. H. Pierce of Chicago: The mucous membrane lining the Eustachian tube is not smooth, but is in folds, and there may also be more or less obstruction from adenoid tissue. Strictures occur most frequently at the isthmus. In stapes ankylosis, or in various conditions of the middle ear, electrolysis of the Eustachian tube could not do good.

Dr. Harris (closing the discussion): In every case a celluloid bougie had been passed before trying electrolysis. In the hands of competent persons, thoroughly acquainted with the technique, the method was probably free from danger, but under other circumstances it certainly was not free from risk.

ABSTRACTS FROM CURRENT LITERATURE.

Cataract Extraction in Extremely Advanced Age.—*Phila. Med. Jour.*, November 16.

Reclination in advanced age has been almost entirely supplanted by extraction. Mendel, the second assistant at Hirschberg's clinic, observed that of the 34 patients over eighty years of age among the 1645 in whom nuclear cataract was extracted unfavorable results were obtained in but one case. In individuals over eighty years of age a corneal section constitutes not only an exquisitely delicate procedure, but one coupled with many difficulties, such as atrophic thinning of the tissues, arterio-sclerosis, and constitutional involvements, embracing the lungs, heart, genito-urinary system, and even the brain. Complications, such as prolapse of the iris, loss of vitreous, and infection, are necessarily more liable to occur, and in one of Mendel's cases pulmonary œdema, in consequence of an existing heart lesion, followed a cataract extraction. With scrupulous care, however, extreme old age does not materially influence the prognosis of cataract extraction. J. L. M.

Cerebral Concussion with Retinal Changes.—L. A. W. Alleman.—*Amer. Med.*, August 24.

He reports a case in a healthy young man wearing correcting glasses who called the day after receiving, in an intercollegiate

game, a rap on the head which knocked him out for a few moments; he had seen double and been dazed for the remainder of the game. He had frequently received such raps and thought nothing of them. He complained of discomfort in reading and a blur before the left eye; this blur was recent, but he could not say just when it had first appeared. Corrected V., O. D., $\frac{20}{20}$; O. S., $\frac{20}{100}$; no change in glasses improves. There was an indefinite partial central scotoma in the left eye.

Scattered about the fundus of both eyes were pigment spots and degenerative plaques of small size, which suggested old hæmorrhages. The nerve margins were indistinct, and the retinal vessels tortuous; not alone the tortuosity of the larger vessels, often seen as the result of eye strain, and commonly found in neuro-retinitis, but a crinkling, most marked in the terminals and smaller vessels, a condition which I associate with disturbances of general assimilation and improper elimination.

In the right eye, midway between the macula and disk, there was an area which showed pigment absorption and indefinite retinal changes; in the left there was a slight haze over the entire fundus; as there was no cause for this obscuration, in the media, I considered it due to a retinal œdema. To determine the cause of the obscuration at the fixation point of which the patient complained, I dilated the pupil of the left eye and examined the macula most carefully, but there was no lesion visible.

On the following day there could be seen, even with an undilated pupil, a small fluffy spot just above the fovea—a trifling lesion, I admit, yet one that could scarcely have escaped the very careful search of the previous day, had it been then present.

J. L. M.

The Supra-orbital Reflex.—McCarthy of Philadelphia. —*Neurolog. Centralbl.*, September 1.

Striking (with a percussion hammer) upon the supra-orbital nerve, or one of its branches, produces a momentary lightning-like contraction of the orbicularis palpebrarum. The reflex is considered exaggerated when percussion upon any portion of the distribution of the nerve causes the twitching, and diminished when the twitching is slight, and the blow must be struck exactly upon the trunk. The arc of this reflex is apparently the fifth

and seventh nerves. The reflex is occasionally lost in locomotor ataxia, and was absent in one case of paralysis of the fifth nerve without involvement of the seventh upon the same side. It is important because it is an example of a purely sensory nerve (the supra-orbital) producing motion in a purely motor nerve (the seventh). Its clinical value has not yet been determined.—*Phil. Med. Jour.*, October 12. J. L. M.

The Pupil in General Disease.—*Bost. M. and S. Jour.*, September 26.

Mydriasis may be from glaucoma, emotion, pain, fatigue, dyspnœa, deep inspiration, blindness (loss of reflex), ptomaines (with paralysis of accommodation), paralysis of the third nerve or irritation of the sympathetic; bilateral and unilateral mydriasis may occur in diabetes; alternating unilateral mydriasis is premonitory of mental derangement; irritation mydriasis occurs in spinal meningitis, spinal irritation of anæmia after severe illness, with intestinal worms, as a premonition of tabes, in mania, melancholia, or general paralysis.

Myosis occurs from certain drugs (pilocarpin, eserin, opium, jaborandi, physostygma), certain occupations, irritation of a foreign body, posterior synechiæ, nicotinism; irritation of the third nerve; paralysis of the sympathetic; in spinal lesions above the dorsal vertebræ. Myosis is followed by mydriasis in progressive paralysis. Unequal pupils are not always pathologic; they occur in hysteria. In epilepsy conditions vary. Hippus may occur in coming paralysis, hysteria, and disseminated sclerosis. In the algid stage of cholera the presence of light reflex is favorable. In diagnosis the condition of the pupil is an unimportant symptom, if taken alone. J. L. M.

Some Details in Eustachian Catheterization.—Dundas Grant, M. D., F. R. C. S.—*Jour. Lar., Rhin., and Otol.*, September.

Rhinoscopic examination is advised before the first catheterization. "In case of an oblique ascending ridge on the side of the septum, it may be taken as a general rule that the catheter should be introduced with its beak pointing toward the septum and underneath the ridge; then, when it is in this way pushed back as far as it will go, the point should be turned downward and outward underneath the inferior turbinated body and

upward into the hollow, and then upward and outward into the vault of the inferior meatus. It is sometimes necessary to withdraw the catheter slightly before engaging its point under the inferior turbinal ; the instrument is then pushed steadily backward, until it is felt to be free in the naso-pharynx, when it can be turned downward and hooked over the back of the soft palate. In some cases, where the septal ridge diminishes rapidly and considerably toward its posterior part, the beak of the catheter need not be turned under the turbinal at all, but kept pointing upward under the septal crest until the naso-pharynx is reached. This proceeding is greatly facilitated if the point of the nose is pressed forcibly upward.

"When the inferior turbinal projects considerably, and the septal spur is not very great, it is sometimes advantageous to pass the catheter above the turbinal till its tip, pointing downward, reaches the naso-pharynx, when, by a little steady downward pressure, the stem of the catheter may be forced down between the turbinal and the crest on to the floor of the meatus. When the septal projection extends outward so far in the inferior meatus as nearly to occlude the orifice, the nasal speculum must be removed, so that the tip of the nose may be forcibly pressed toward the opposite side of the face. The point of the catheter is then introduced under the septal projection, the stem being directed toward the opposite side of the face, pressing the tip of the nose with it. This will often permit the catheter to lie, as it were, on its side on the floor of the nose, being pushed in till its angle approaches the middle part of the inferior meatus, where the passage widens out considerably. By a little gentle *tâtonnement* the operator will find whether the point of the instrument should be turned upward or downward, so as to be coaxed through into the naso-pharynx with the least difficulty. In another class of case there is a projection from the septum at the junction of its posterior and middle third, presenting a somewhat arched shape on inspection. When this is present, the passage of a sufficiently curved catheter is quite impossible, as long as the usual rule is followed of turning the beak downward and pushing it along the floor of the nose. The catheter must, on the other hand, be placed with the back of its beak on the floor of the nose after the manner of the head of a golf-club ; and to allow this position to be maintained while the catheter is

pushed sufficiently far back for its tip to get in the arch-like projection, it is necessary for the tip of the nose to be tilted upward and to the opposite side." A. W. P.

Anilin Oil, with Report of a Case Showing Toxic Symptoms from its Use in the Ear.—Homer Dupuy. —*The Lar.*, October.

The author, after further experience, still considers Dr. Gray's combination of cocain, anilin oil, and alcohol the anæsthetic par excellence for the external auditory meatus, but advises against its too frequent application, as in otalgia. He employed it in an extreme case of this character. After four 15-drop instillations at hourly intervals, of a solution of 15 grs. cocain to ounce of oil, the patient became drowsy, an hour later "complained of feeling faint, uttered a loud cry, immediately lost consciousness, and became perfectly blue in the face," lips and nails bluish black, skin cold and clammy, sweat over whole body, pulse 136, temperature subnormal, respiration 36 and sighing in character. Atropin 1/10 gr. and strychnine 1/30 gr. every two hours, and ammonia aromat. m. x. every hour, were administrated for a day with considerable improvement. Cyanosis and rapid pulse continued twenty-four hours, and extreme weakness persisted several days. A. W. P.

[Query, how much of this condition was due to the anilin oil? Camphor, bromide of camphor, and inhalation of oxygen should be serviceable for such a condition. J. L. M.]

The Tonsils as Portals of Infection.—Dr. Uhlman. —*Med. News.*, January 26, 1901.

After a thorough résumé of the literature on this subject the author draws the following conclusions: (1) That the normal tonsil has a physiologic function, probably protective to the organism. (2) That being in itself often diseased, the physiologic function of the tonsil is impaired, and that, instead of being protective, it is the nidus for the growth and distribution of pathogenic organisms and their poisonous products in the system. (3) That many grave and fatal general infections have their origin in the tonsils. (4) That if the exanthemata, particularly scarlatina, are of bacterial origin, the tonsil acts in part as port of entry. (5) That acute articular rheumatism, and the

diseases often associated with it, endocarditis and chorea, in the great majority of cases, are due to the action of attenuated bacteria, their toxins, or both, entering the system through a diseased tonsil. (6) That in those rare cases of typhoid fever in which no intestinal lesions can be demonstrated, the similarity of the tonsillar tissue and Payer's patches suggests the tonsil as the portal of entry of the Eberth bacillus. (7) That scrofulosis is often associated with the diseased tonsillar tissue, and that the tubercle bacillus often enters the system via the tonsils. (8) That the tonsil is too little examined at autopsy, and much light might be shed on fevers of uncertain origin by its bacteriologic and histologic examination. The bibliography includes sixty-eight references to the literature. A. W. P.

Vocal Nodules.—Chas. H. Knight.—*The Lar.*, November.

The author considers the title of this paper the proper name for the condition usually called "Singer's Nodes" or "Chorditis Tuberosa." After mentioning the generally accepted ætiology and pathology, and citing a case which developed under his observation, he offers the following as a possible theory of formation of these little excrescences. "It is found that some anatomists, Morris and others, call attention to the fact that the thyroarytenoid muscle distributes fibers to the margin of the cord which act in a manner analogous to that of a stop finger on a violin string, limiting vibrations to one portion of the band. Is it not conceivable that contractions of certain bundles of these fibers with too much vigor or excessive frequency may lead to hyperæmia, tissue building, hyperplasia at their point of attachment on the surface of the band? Or possibly a minute localized hæmorrhage may take place and subsequently undergo organization. It would seem reasonable to suppose that the constant tugging upon these fibers in the production of a certain tone might induce an effort of nature to fortify the region of their insertion by throwing out new tissue, or that an effusion of blood might follow a rupture due to sudden and violent muscular contraction." A. W. P.

Treatment of Atrophic Rhinitis by Electrolysis.—Carolus M. Cobb.—*Jour. Amer. Med. Assoc.*, March 16, 1901.

Closes with the following conclusions: (1) Electricity has a curative action in atrophic rhinitis in so far as it stops the

tendency to crust formation and the odor in typical cases. (2) It does not stop the discharge or odor, if these are caused by nasal empyema. (3) Better results are obtained if the needles are placed comparatively near together. (4) It makes no difference in the result what metal is used for needles, and it therefore follows that the diffusion of the copper salt is evidently not the curative agent. (5) The improvement in the condition of the mucous membrane is most noticeable in the area around the positive pole. (6) This improvement is probably due to the liberation of oxygen and chlorine, and to the chemical change resulting from the presence of free oxygen and chlorine in the tissues, or the acid reaction produced thereby. (7) The needle of the negative pole should not be placed beneath the membrane of the septum. A. W. P.

Nasal Hydrorrhœa.—J. Molinie.—*Rev. hebd. Laryng., d Otol. Rhin.*, May 18, 1901.

After an exhaustive article the following conclusions are deduced: (1) Nasal hydrorrhœa, as a morbid entity, has ceased to be. (2) Instead, two groups of causes for the secretion are recognized, limited by the rôle played by the pituitary body. (3) In the first group the nasal mucous membrane acts directly in producing the secretions, but by varying mechanisms according to the cases, and under various general and local influences. (4) In the second group the nose acts only as a passage for the secretion, which may come (*a*) from the brain; thus revealing more or less grave pathologic conditions within the head, or (*b*) from the sinuses; in which case it depends on a new growth or a hydrops of these cavities. (5) Nasal hydrorrhœa, whatever its point of origin, is always a secondary phenomenon, never essential and primary. (6) It is necessary, then, when confronted with the symptoms of hydrorrhœa, to point out the causes, or at least the source, of the secretion, before we can thoroughly understand its significance, or formulate the therapeutic indications in each particular case. A. W. P.

BIBLIOGRAPHY.

The reader who notes any omissions or errors will confer a favor by sending corrections to Dr. W. U. Reynolds, 320 Manhattan Ave., New York.

5 Am. J. of M. Sc. (Phila.).
6 Am. J. of Ophthalm. (St. Louis).
7 Am. J. of Physiol. (Boston).
9 Am. Medicine (Phila).
12 Anat. Anz. Centralb. (Jena).
15 Ann. de la Policlin. de Paris.
21 Ann. des Mal. de l'O., du Lar., du Nez et du Phar. (Paris).
22 Ann. d'Oculistique (Paris).
23 Ann. d'Ophtalmol. (Paris).
25 Ann. di Med. Nav. (Roma).
26 Ann. di Ottalmologia (Pavia).
28 Ann. of Ophthalmol. (St. Louis).
29 Ann. of Ot., R. and L. (St. Louis).
33 Arb. aus Anat. Inst. (Wiesbaden).
34 Arb. a. d. Chir. Klin. d. Königl. Univ. (Berlin).
36 Arch. of Ophthalm. (N. Y.).
37 Arch. of Otol. (N. Y.).
38 Arch. d'Ophtalmol. (Paris).
39 Arch. de M. et de Chir. Sp. (Paris)
40 Arch. de M. Experim. et d'Anat. Pathol. (Paris).
42 Arch. Internat. de Lar., de l'Ot., et de Rhinol. (Paris).
46 Arch. f. Anat. u. Phys. (Leipzig).
47 Arch. f. Augenh. (Wiesbaden).
48 Arch. f. Ohrenh. (Leipzig).
49 Arch. f. Lar. u. Rhin. (Berlin).
50 v. Graefe's Arch. f. Oph. (Leipzig)
52 Arch. f. Mic. Anat. u. Ent. (Bonn)
53 Arch. f. d. Gesam. Phys. des Mensch. u. d. Thiere. (Bonn).
54 Arch. f. Pathol. Anat. u. Phys.
56 Arch. Ital. di O., R. e L. (Torino).
57 Arch. Ital. di Lar. (Napoli).
58 Arch. di Ottalmol. (Palermo).
65 Atti delle Accad. delle Sc. M. e Nat. (Ferrara).
75 Beitrage z. Augenh. (Hamburg).
80 Brain.
82 British Med. Journ.
85 Buffalo M. Jour.
86 Bull. de Lar., Ot., et Rh. (Paris).
88 Bull. of Johns Hopkins Hosp. (Balt.).
98 Centralbl. f. Pr. Augenh. (Leipzig).
105 Clinical Journal (London).
120 Edinburgh Med. Journal.
125 Gaceta Medica (Mexico).
126 Gac. Med. Catalana (Barcelona).
128 Gaz. des Hôp. (Paris).
131 Giorn. Internaz. delle Sc. M. (Napoli).
132 Giorn. delle Assoc. Napol. di Med. e Nat.
133 Giorn. delle R. Accad. di M. di Torino.
139 Guy's Hosp. Gaz. (London).
141 Hahnemannian Mo. (Phila.).
144 Hom. E., E., and T. Jour. (N.Y.)
155 Indian Lancet.
156 Indian Med. Gaz. (Calcutta).
157 Indian Med Rec.
172 J. de Phys. et de Pathol. Gen. (Paris).
173 J. of Advanced Therap. (N. Y.).
175 J. of Am. Med. Assn. (Chicago).
176 J. of Anat. and Phys. (London).
178 J. of Brit. Hom. Soc. (London).
182 J. of E., E., and T. Dis. (Balt.).
183 J. of L., R., and O. (London).
184 J. of Ment. and Nerv. Dis. (N.Y.)
185 J. of O., O., and L. (N. Y.).
188 J. of Physiol.
193 Klin. Monatsbl. für Augenh. (Stuttgart).
195 Klin. Vortr. and Geb. d. Otol. u. Phar. Rhin. (Jena).
200 La Clin. Ophtal. (Paris).
210 La Parole (Paris).
215 Laryngoscope (St. Louis).
220 Le Progrès Méd.
225 London Lancet.
229 Lo Sperimentale (Fierenze).
235 Med. and Surg. Jour. (Boston).
240 Medical News (N. Y.).
242 Med. Press and Circ. (London).
245 Medical Record (N. Y.).
250 Medical Times (London).
254 Med. Times and Hosp. Gaz. (London).
260 Mind (London).
265 Monatsch. f. Ohrenh. (Berlin).
275 N. Y. Eye and Ear Infirm. Rep.
280 N. Y. Med. Jour.
283 N. Y. State Jour. of Med. (N. Y.)
285 No. Am. Jour. of Hom. (N. Y.)
290 Nouv. Icon. de la Salpet. (Paris).
299 Ophthalmic Record (Chicago).
300 Ophthalmic Review (London).
310 Phila. Med. Jour.
313 Post-Graduate, The (N. Y.).
315 Proc. of the Phila. Pathol. Soc.
317 Proc. of the Roy. Soc. (London).
330 Receuil d'Ophtalm. (Paris).
333 Revista Espec. Med. (Madrid).
355 Schmidt's Jahrb. d. in- u. ausland ges. Med.
356 Sei-I-Kwan Med. Jour. (Tokio).
400 Univ. of Pa. Med. Bul. (Phila.).
450 Zeitschr. f. Augenh. (Berlin).
455 Zeitschr. f. Ohrenh. (Wiesbaden).
460 Zeitschr. f. Physiol. u. Phys. d. Sinnesorg. (Leipzig).

OPHTHALMOLOGY.

Spontaneous Couching of a Corgenitally Dislocated Lens. T. B. Schneideman (Philadelphia), 299, Aug.

Simplified Form of Stereoscope. Charles A. Oliver (Philadelphia), 299, Aug.

Simultaneous Rupture of the Choroid and Paretic Mydriasis without Paresis of Accommodation. Alexander Duane, (New York), 299, Aug.

Syphilitic Retinitis. Harry Friedenwald (Baltimore), 299, Aug.

Vertical Median and Horizontal Fixed Planes of the Head. Editorial, 299, Aug.

Commotio Retinæ, Caused by Contre-Coup, with Persistent Blindness ; Complete Recovery, 299, Sept.

Tests for Heterophoria. G. C. Savage (Nashville), 299, Sept.

Is the Theory of the Vicarious Fovea Erroneous? A. Edward Davis (New York), 299, Sept.

Employment of Agar-Agar in the Formation of a Stump after Enucleation or Evisceration. Geo. F. Luker (Chicago), 299, Sept.

High Degree of Conical Cornea with Hyperopic Refraction. H. V. Wurdemann (Milwaukee), 299, Sept.

Injury to the Eye from the Explosion of a Water Glass. S. Mitchell (Hornellsville, N. Y.), 299, Sept.

Further Remarks upon the Surgical Treatment of High Myopia, with the Report of an Operation. Charles W. Kollock (Charleston, S. C.), 299, Sept.

Box for Mounting Eye Jars. Brown Pusey (Chicago), 299, Sept.

Resection of the Superior and Middle Cervical Ganglion of Sympathetic for Subacute Glaucoma. Melville Black (Denver), 299, Oct.

A Secure Stitch for Advancement Operations. Fredk. H. Verhoeff (Boston), 299, Oct.

Method of Measuring the Amount of Ciliary Spasm by Means of the Shadow Test. R. W. Place (Boston), 299, Oct.

Use of the Clock Dial Chart in the Refraction of Astigmia. J. S. Johnson (St. Paul), 299, Oct.

Hæmorrhage into the Orbit of a Newborn Child. C. D. Conkey (West Superior, Wis.), 299, Oct.

A New-Formed Physiologic Macula. Jas. Bordley, Jr. (Baltimore), 299, Oct.

Chorioretinitis Striata. J. Wilkinson Jervey (Greenville, S. C.), 299, Oct.

A Valuable Surgical Procedure in Ophthalmology. Editorial, 310, Sept. 21.

Concerning the Treatment of the Apparently Unaffected, or at most but Slightly Involved, Eye in Cases of Glaucoma. G. E. de Schweinitz (Philadelphia), 310, Sept. 21.

An Improved Lantern for Detecting Color Blindness, to Supplement the Deficiencies of the Wool Tests. Wm. Thomson and Archibald G. Thomson (Philadelphia), 310, Sept. 21.
Two Cases of Swelling of the Eyelid Occurring after a Bath. Theodore Fischer, 105, Sept. 4.
Clinical Remarks on Four Cases of Intra-Ocular Hæmorrhage. W. M. Beaumont, 105, Sept. 11.
A Clinical Lecture on Strabismus. Priestley Smith, 105, Sept. 18.
Phlyctenular Conjunctivitis. Kenneth Scott, 120, Oct.
The Expression of the Eyes. Giuseppe Albertotti, 155, Sept. 2.
An Ophthalmic Clinic in the Jefferson College Hospital. G. E. de Schweinitz, 155, Sept. 30.
Antiquity of Tattooing for Corneal Opacities; The Case of Leucoma in the Book of Tobit? C. Creighton, 155, Oct. 7.
On the Chemistry and Toxicology of Nerium Odorum, with a Description of a Newly-Separated Active Principle. Rai Chunilal Bose Bahadoor, 156, Aug.
Some Ophthalmic Complications of Plague. F. P. Maynard, 156, Sept.
Cerebral Abscess Complicating Gunshot Injury with Bilateral Loss of Peripheral Vision. Alfred W. Sanders (Pretoria), 225, Aug. 31.
The Use of Cuprol in Granular Ophthalmia. Simeon Snell (Sheffield), 225, Sept. 14.
Operations for Cataract in Septic Conditions. Freeland Fergus (Glasgow), 300, Sept.
Note on Holocain. Frank C. Crawley, 300, Sept.
The Varieties and Treatment of "After-Cataract." F. Richardson Cross (Bristol), 300, Oct.
Note on the Treatment of Hypopyon Ulcer. H. Herbert, 300, Nov.
An Unusual Form of Keratitis Associated with a General Skin Eruption. Charles Blair, 300, Nov.
Studies in Visual Sensation. C. Lloyd Morgan (Bristol), 317, Sept. 12.
New Lachrymal Sounds. Chas. H. Beard (Chicago), 6, xviii. No. 10.
Cortical Blindness—Bilateral Homonymous Hemianopsia. C. Barck (St. Louis), Idem.
Hyaline Degeneration of the Cornea. Oscar Dodd (Chicago), Idem.
Therapeutic Value of Adrenalin Chlorid. Dudley S. Reynolds (Louisville, Ky.), 6, xviii. No. 11.
Glioma of the Retina. J. H. Johnson (Kansas City, Mo.), Idem.
Plea for the Occasional Performance of Depression. Henry Power, Idem.

An Enormous Cicatricial Cyst. Henry Dickson Bruns (New Orleans) and Adolf Alt, 6, xviii. No. 12.
Comparative Value of Silver Preparations in Oph. Work. G. Hartridge (London), Idem.
Dangers of Adrenalin in Eye Diseases. Henry B. Lemere (Omaha, Neb.), 9, ii.
German Methods as Contrasted with American in Eye Diseases. Howard F. Hansell (Phila.), Idem.
Eye Dis. as a Result of Bathing in Public Pool Baths. W. L. Ross, 9, ii.
Granular Lids. J. C. Huizinga (Grand Rapids, Mich.), 9, ii.
When Should the Oculist be Consulted? Fred. D. Lewis (Buffalo, N. Y.), Idem.
Epiphora Due to Hypermetropia and Presbyopia. F. C. Riley (New York), 9, ii. No. 25.
Blindness from Inhalation and Ingestion of Methyl Alcohol. H. V. Würdemann (Milwaukee, Wis.), 9, ii. No. 25.
Observations with the New Electric Ophthalmoscope. Hugo Wolff (Berlin), 28, x. No. 4.
Treatment of Recent Embolism of Retinal Arteries by Deep Massage, with Cures. M. F. Weymann (St. Joseph, Mo.), Idem.
Optic Atrophy Following Hæmatemesis. James D. Barrett (Melbourne, Aust.), 28, x. No. 4.
Residual Sensations as a Test for Diplopia, with Description of a New Method for Measurement of Oc. Mus. Imbalance. Clinton F. Cooke, Idem.
Descemetitis a Symptom of Inflam. in any Portion of the Uvea. Henry Dickson Bruns (New Orleans), 36, xxx. No. 6.
Endothelioma of the Lachrymal Gland (Myxo-Chondro-Endothelioma Cylindromatodes). Alfred Scott Warthin (Ann Arbor, Mich.), Idem.
Anisometropia. Alexander Duane (New York), 36, xxx. No. 6.
Torticollis in Cases of Vertical Deviation of One Eye. Karl Dallwig (Helmstedt, Prussia). (Trans. W. A. Holden), Idem.
Homonymous Hemianopsia of Cortical Origin with Disturbances in the Remaining Halves of the Fields. Th. Gelpke (Karlsruhe). (W. A. Holden, Trans.), 36, xxx. No. 6.
Traumatic Degeneration of Retina. E. Adamuck (Kasan). (Trans. W. A. Holden), Idem.
The Optic N. in Relation to Nervous Diseases. E. W. Wright, Brooklyn Med. Jour., N. Y., Jan., xvi. No. 1.
Intercranial Syphilis and Hemiplegia, with Report of Cases Treated in St. Mary's Hospital. L. J. Morton (Brooklyn), Idem.
The Necessity for Mydriatics in Correcting Refraction. Charles Deady (New York), 144, vii. No. 12.
Objections to Use of Mydriatics in Treatment of Errors of Refraction. E. H. Linnell (Norwich, Conn.), Idem.

The Necessity of Frequent Examinations of Eyes of Children. F. Park Lewis (Buffalo, N. Y.), 144, vii. No. 12.
Trachoma in the State of Illinois. W. H. Wilder (Chicago), Illinois Med. Jour., Springfield, iii. N. S. No. 8.
Eserine in Astigmatism. R. B. Leach, Minneapolis Hom. Mag., Nov., x. No. 11.
Late Implanting of Glass Ball in Orbit and Epithelial Lip Grafts to Orbit. Adeline E. Portman (Washington, D. C.), 175, xxxvii. No. 15.
Treatment of Strabismus other than Operative. Edwd. Jackson (Denver, Col.), 175, xxxvii. No. 17.
The Strabismus Operation. C. F. Clark (Columbus, Ohio), Idem.
The Somatic Signs of Brain Syphilis. Hugh T. Patrick (Chicago) 175, xxxvii. No. 17.
The Psychoses in Cerebral Syphilis. Rich'd Dewey (Wauwatosa, Wis.), Idem.
Syphilis of the Nervous System. F. W. Langdon (Cincin., O.) Idem.
Results in Squint. J. M. Ray (Louisville, Ky.), 175, xxxvii. No. 18.
Strabismus, Its Treatment. A. Edw'd Davis (N. Y. City), Idem. No. 19.
Total Retroflexion of Iris. Alvin A. Hubbell (Buffalo, N. Y.), 175, xxxvii. No. 20.
Tarsadenitis Meibomica. M. F. Weymann (St. Joseph, Mo.), Idem.
The Non-Surgical Treatment of Heterophoria. George M. Gould (Philadelphia), 175, xxxvii, No. 21.
The Operative Treatment of Heterophoria. G. C. Savage (Nashville, Tenn.), Idem.
A Table of Ocular Extrinsic Paralyses. Horace M. Starkey (Chicago), 175, xxxvii. 21.
Mules' Operation. F. C. Todd (Minneapolis), Idem.
Mirror-writing and the Inverted Image. Albert B. Hall and Sidney Kuh (Chicago), 175, xxxvii. 21.
The Newer Pathology of the Retina. Harry Freidenwald (Baltimore), Idem, 22.
Atrophy of Retina. Dudley S. Reynolds (Louisville, Ky.), 175, xxxvii. 22.
Blindness from Drinking Bay Rum. H. Moulton (Fort Smith, Ark.), Idem.
Extraction of Cataract without Iridectomy. S. D. Risley (Phila.), 175, xxxvii. 23.
Temporary Clearing of a Cataractous Lens. Hiram Woods, Jr. (Baltimore), Idem.
Enucleation of the Eye in Two Minutes by a New Method. A. T. Mitchell (Vicksburg, Miss.), 175, xxxvii. 23.

Multiple Rupture of Choroid. J. Whitefield Smith (Bloomington, Ill.), Idem.
The Necessity of Cycloplegics in the Correction of Refractive Errors. Chas. Deady (New York), 185, xiii.
Preliminary Note on Toxic Amblyopia Produced by Tobacco. F. Park Lewis (Buffalo, N. Y.), Idem.
Perimetric Visual Fields—A Suggestion. John L. Moffat (Brooklyn, N. Y.), 185, xiii.
Present Position of Oph. Science and Art. D. B. St. John Roosa (N. Y.), 245, lx. 20.
Multiple Unilateral Cranial N. Paralysis. Philip King Brown (San Fran.), 245, lx.
Treatment of Xanthoma of Eyelids. Fred J. Leviseur (N. Y.), 245, xl.
Epitome of the Subject of Rheumatism as Cause and Effect in Inflam. of the Throat. Wm. Cheatham (Louisville, Ky.), Idem.
Trachoma in the State of Illinois. Wm. H. Wilder (Chicago), 299, x. 11.
Central Fistulæ of Cornea Persisting Several Years. H. V. Würdemann (Milwaukee), 299, x. 11.
Primary Intradural Tumors of Optic Nerve. Editorial, Idem.
Penetrating Wound of Orbital Cavity with Partial Detachment of Retina. G. A. Whitledge (Anderson, Ind.), Idem, 12.
Circular Rupture of Iris. O. A. Griffin (Ann Arbor), Idem.
Another Case of Hyperopia and Conical Cornea. James W. Dunn (Cairo, Ill.), Idem.
The Diagnosis of Ocular Paralyses. Alex. Duane (N. Y.), Idem.
Conical Cornea with Hyperopic Refraction. Wm. E. Bruner (Cleveland, O.), 299, x. 12.
Noma of Eyelids in Infant. F. W. Marlow (Syracuse, N. Y.), Idem.
True Tumors of the Optic Nerve. A. Pick (Prague), 80, Autumn, 1901.
Cerebral and Cerebellar Tumors with Well-Defined Tract Degenerations. F. Thiele, Idem.
Diagnosis, Prognosis, and Treatment of Pernicious Myopia, 82, Oct. 19.
A New Refractometer. C. S. Blair, Idem.
Superficial Punctate Keratitis in Bombay. Major H. Herbert, 82, Oct. 19.
Symmetrical Bullous Keratitis. J. T. Thompson, Idem.
Unusual Form of Keratitis Associated with General Skin Eruption. C. S. Blair, Idem.
The Pigment of an Iris Altered by Operation (Memorandum). R. J. McKeown, 82, Oct. 19.
Cyst of the Iris. W. J. Collins, Idem.

Evolution of a Perceptive Center. F. W. Edridge-Green, 82, Oct. 26.
Periscopic Lenses. A. S. Percival, 82, Oct. 26.
Plea for the Occasional Performance of Depression. H. Power, Idem.
Essentials of a Test for Color-Blindness. F. W. Edridge-Green, 82, Oct. 26.
Ophthalmic Conditions Resulting from Modern Gunshot Wounds. L. V. Cargill, Idem.
Ulcer of the Cornea with Hypopyon. R. Williams, 82, Oct. 26.
Treatment of Hypopyon. Ulcers of the Cornea. R. J. Hamilton, Idem.
Relation of Gonorrhœa to Diseases of Eye (Excluding Purulent Oph.). Discussion, 82, Nov. 2.
Comparative Value of Silver Preparations in Oph. Work. G. Hartridge, Idem.
Recent Therapeutic Discoveries in Ophthalmology. A. Darier, 82, Nov. 2.
Suprarenal Gland in Oph. Jno. A. Bower, Idem.
Note upon Tuberculosis of Choroid. Geo. Carpenter and Syd. Stephenson, Idem.
Varieties and Treatment of "After Cataract." F. R. Cross, 82, Nov. 2.
Testing of Workmen's Eyesight. Hugh E. Jones, Idem.
On Some Symptoms Produced by Tumors of Optic Thalamus. J. Mitchell Clarke, 82, Nov. 9.
On Localization in the "Motor" Cerebral Cortex. C. S. Sherrington, and A. S. F. Grunbaum, 82, No. 2139.
Injuries of the Eyelids and Eyeballs. L. Webster Fox, 155, xviii. No. 20.
Use of Pilocarpine in Treatment of Inflammations of Interior of Eye. Howard F. Hansell, Idem.
Cerebellar Gliomatous Cyst, of Traumatic Origin, and Fatal Two and a Half Years after the Original Injury. H. D. Stephens (Melbourne), Intercolonial Med Jour. of Australasia, Melbourne, vi. No. 10.
A Few Exceptional Cases of Cataract Extraction. Chas. Bell Taylor, 225, clxi.
Mooren's Ulcer (Chronic Serpiginous of Cornea). E. Nettleship, 225, Ophthal. Society, clxv., Nov. 8.
Congenital Word-Blindness. Glasgow So. Med. Soc., 225, clxi.
Influenza as it Affects the Eye. A. C. Jordan, Med. Chron., London, xxxv. No. 205.
Pernicious Myopia. Priestley Smith, 300, xx. No. 242.
Superficial Punctate Keratitis. H. Herbert, Idem.
Uniformity in Notation. W. M. Beaumont, Idem.
On Areal Induction. George J. Burch (Reading), 317, lxix. No. 452.

Ueber das Verhalten des Augenhintergrundes bei den otitischen intercraniellen Erkrankungen auf Grund des in der Klinik seit 1892 gemachten Beobachtungen. E. Hansen, Halle 48, B. liii.

Augenärztliche Mittheilungen aus Egypten. Alfred Osborne, Alexandrien, 47, xliv. 2.

Stereoskop für Schielende zur Bekämpfung der Neutralisation. A. Senn in Wyl., 47, xliv. 2.

Operativ behandelter Fall eines Myxosarcoma retrobulbare. Julius Fejer (Budapest), 47, xliv. 2.

Die Myopie-Operationen der Bromberger Augenklinik. M. Meyerhof, 47, xliv. 2.

Einige Beobachtungen an einem Falle von totaler Farbenblindheit. W. A. Nagel (Freiburg), 47. xliv. 2.

Ueber Cystenbildung an der Hornhautober fläche. F. Schieck, 50, lii. 2.

Zur Kenntniss der binocularen Tiefenwahrnehmung. Elschnig, 50, lii. 2.

Die Lage des Sphinktercentrums. Eine experimentelle Studie. St. Bernheimer (Innsbruck), 50, lii. 2.

Ueber Randsklerose und Randatrophie der Hornhaut. Ernst Fuchs (Wien), 50, lii. 2.

OTOLOGY.

Bacteriology of Otitis Media, etc. J. Funke (Phila.), 9, ii.

Idem. Concluded, Idem.

Compound Comminuted Depressed Fracture of the Skull, Cerebral Abscess, Cerebral Hernia, Operation, Recovery. G. W. Spencer (Phila., Pa.), 9, ii. No. 23.

Acute Pur. Ot. Med. and Pleurisy followed by Peliosis Rheumatica. Amzi S. Plummer (Peoria, Ill.), 9, ii. No. 25.

Subcortical Glioma of Frontal Convolution Successfully Removed. Jas. Stewart (Montreal, Canada), 9, ii. No. 25.

Therapeutic Value of Vibratory Massage of the Drumhead. Schwabach (Berlin). Trans. H. Knapp, 37, xxx. Nos. 4, 5.

Otogenous Meningitis. Jacob Cohn (Breslau). Trans. H. Knapp, Idem.

Retro-pharyngeal Abscesses after Otitis Media Purulenta. Geo. Kien (Strassburg). Trans. J. A. Spalding, Portland, Me., Idem.

Thrombo-Phlebitis of Superior Longitudinal Sinus Following Inflam. of the Frontal Sinus. G. Killian (Freiburg i. Br.) Trans. A. Knapp, New York, Idem.

True Cholesteatoma in the Posterior Cranial Fossa—Infected by Middle Ear Suppuration—Operation—Recovery. O. Körner (Rostock). Trans. and abv'd. Edwin M. Cox, New York, Idem.

Pyemia Caused by Bilateral Otitis Media with Osteophlebitis of the Temporal Bone. E Rimini (Trieste). Trans. and abv'd. Edwin M. Cox, New York, 37, xxx. Nos. 4, 5.
Two Cases of Brain Abscess, Operation, Recovery. P. Manasse (Strassburg). Ab'v'd Trans. Arnold Knapp, New York, Idem.
Histology of Aural Polypi. G. Brühl (Berlin). Trans. A. Knapp, New York, Idem.
Operations on Mastoid in Constitutional Disease. Ernst Barth (Brieg.) Trans. A. O. Pfingst, Louisville, Ky., Idem.
A Remedy for Ménière's Syndrome. Jos. T. O'Connor (New York), 144, viii. Jan.
Aural Massages. Edgar J. George (Chicago, Ill.), Idem.
Simple Fracture of the Vault, with Meningitis on Third Day, Autopsy. Edward T. Alford (Chicago), 175, xxxvii. No. 13.
Symptomatology of Cerebral Hæmorrhage. F. Savary Pearce (Phila.), Idem. No. 14.
Intra-cranial Resections of the 2d and 3d Branches of the 5th Nerve. Leo Newmark and Harry M. Sherman (San Fran.), 175, xxxvii. No. 23.
Some Remedies for Otorrhœa. John L. Moffat (Brooklyn, N. Y.), 185, xiii., Jan.
Holocain—A New Anæsthetic. Drs. Heinz and C. Schlosser (Munich), 185, xiii., Jan.
Differential Diagnosis of Affections of the Eustachian Tube and Spongifying of the Labyrinth. J. Holinger (Chicago), 215, xi. No. 3.
Diseases of Stenson's Duct and Treatment. Carl E. Munger (Waterbury, Conn.), Idem.
The Successful Treatment of Aural Pain. H. A. Beaudoux (Fargo, N. D.). Medical Ideal (Minneapolis), July, iii., No. 7.
Fractures of the Skull and Their Diagnosis. T. W. Ashley. Minneap. Hom. Mag., Nov.
Intracranial Tumor; Operation; Recovery. Wm. H. Leszynsky, 245, lx. No. 13.
Operative Procedure for Tumor of Brain. Jas. H. Glass, Idem.
Cases Presenting Gross Lesions of the Basal Ganglia. M. L. Perry (Milledgeville, Ga.), Idem., lx. No. 18.
Migraine. Wm. H. Thompson, 245, lx. No. 20.
A Personal Experience with Mushroom Poisoning. E. A. Blount (Oak Park, Ill.), 245, lx.
Nasal Obstruction and Ear Disease. A. C. Bardes (New York), 245, lx. No. 20.
Operation for Caries of the Mastoid, Ligation of Int. Jugular. Jul. Rosenstirn (San Fran.), Idem., lx. No. 21.
Mental Changes that Accompany Visceral Disease. Henry Head, 80, Autumn, 1901.
A Case of Mastoid, Antral, and Two Cases of Frontal Sinus Suppuration. Herbert Tilley, 82, Sept. 28.

Cases of Aural Disease. G. P. Field, 82, Sept. 28.
Eustachian Catheterization. J. Dundas Grant, Idem.
Explanation of Appearances in Some Cases of Acute Lacunar Tonsillitis which Simulate Evacuating Ulcers. J. Dundas Grant, Idem.
Practical Points in the Technique of Skin Grafting in Mastoid Operations. Wm. Milligan, 82, Sept. 28.
So-called Sclerosis of the Middle Ear. Mayo Collier, Idem.
Ætiologie der acuten Mittelohrentzündung. Johannes Kühnleim, 265, Novr.
Günstigen Einfluss des Erysipels auf den Verlauf der Schweren acuten eitrigen Entzündung des Mittelohres. J. Sendziak (Warschau), 265, Dec.
Die Bakteriologie der akuten Mittelohrentzündung. Hasslauer (Würzburg), 195, B. 5, H. 3.
Ohrenerkrankungen und Lebens versicherung. H. Burger (Amsterdam), Idem, H. 4.
Symptomatologie der Hyperæsthesia acutica hysterica. Victor Hammerschlog (Wien), 265, Sept.
Chronischer Mittelohreiterung, complicirt durch Schädelbasis fractur. P. Reinhard (Köln), Idem.
Ein Instrument zur Papillotomie. Jos. Némai (Budapest), Idem.
Labyrintheiterungen. Victor Hinsberg (Breslau), 455, B. xl. H. 2 u. 3.
Ohrenleiden bei Hysterischen. Voss (Riga), 455, xl. 1.
Ueber Toxinämie bei Eiterungen im Schläfenbein. H. Eulenstein (Frankfurt a. M.), Idem.
Zur Klinik der Tumoren des Nervus Acusticus nebst Bemerkungen zur Symptomatologie und Diagnose der Kleinlierntumoren. Josef Sorgo (Wien), 226, Juli.
Étude Anatomique et Pathologique des Groupes Cellulaires Postérieurs de la Mastoide Cellules Juxtasinusales. Stanculeanu et Depoutre, 21, Oct.
Cause et Traitement d'une Névralgie Faciale due a la Galvanocaustie de la Pituitaire. Marcel Lermoyez, 21, Oct.
Sur les bons effets du Massage Tympanique, manométriqument. dans le traitement de la Surdité et des Bourdonnements consécutifs à la sclérose de l'Oreille Moyenne. Suarez de Mendoza (de Paris), 39, 2e An. No. 11.
Massage direct de la Chaîne des Osselets de l'Oreille au Moyen de la Sonde a Ressort de Lucae Moins Douloureux pourtant plus efficace. Charles J. König, 42, xiv. No. 5.
Otolithes de la Grenouille. Marage, 42, xiv. No. 5.
Paralysie Croisée de l'Acoustique. Gellé, 42, xiv. No. 6.
Deux Cas de Corps Étrangers du Conduit Auditif. J. Toubert, 42, xiv. No. 6.
Deux Observations de Corps Étrangers du Conduit Auditif. Clauda (de Carcassonne), 42, xiv. No. 6.

Un Cas d'Épilepsie Jacksonienne résultant d'une affection d'Oreille. De Champeaux, 42, xiv. No. 6.
Un caso di grave emorragia dall'orecchio. G. Gradenigo, 133, An. lxiv.
Inflammation of the Mastoid Process. B. F. Church (Los Angeles), 29, Aug.
Varieties of Cholesteatomata. J. Holinger (Chicago), 29, Aug.
Intracranial Pressure after Head Injuries. Walter B. Cannon (Boston), 235, Aug. 8.
Mastoid Diseases, Three Cases. J. Ivimey Dowling (Albany), 144, Oct.
Occlusion and Strictures of the Eustachian Tube. Geo. W. McDowell (New York), 144, Nov.
Suppuration of the Parotid Gland with Pus in the External Auditory Canal (Two Cases). Francis R. Packard (Philadelphia), 175, Aug. 17.
Uric Acid Inflammations of the Middle Ear, Membrana Tympani and Mastoid. Cornelius Williams (St. Paul), 175, Aug. 27.
The Rationale and Technique of Pneumatic Aural Massage. B. Alex. Randall (Philadelphia), 175, Aug. 31.
Gout and Rheumatism of the Ear. Francis B. Kellogg (Los Angeles), 185, Sept.
Anilin Oil ; Toxic Symptoms from its Use in the Ear. Homer Dupuy (New Orleans), 215, Oct.
A Generally Unrecognized Ear Disease (Otitis Media Mucosa). Henry A. Alderton (Brooklyn), 240, Sept. 21.
A Series of Mastoid Operations. Charles H. May (New York), 245, Aug. 24.
Can Nasal Catarrh and Catarrhal Deafness be Cured ? Carolus M. Cobb (Boston), 245, Sept. 7.
A New Ear Masseur, 245, Sept. 14.
Sulphuric Ether in the Removal of Ceruminous Plugs. E. L. Meierhof (New York), 280, Aug. 24.
Temperature, Pulse, and Respiration in the Diagnosis and Prognosis of Certain Diseases of the Brain. J. T. Eskridge (Denver), 280, Aug. 31 and Sept. 7.
Pathology, Diagnosis, Special Prophylaxis, and Treatment of Tuberculosis of the Middle Ear. Seymour Oppenheimer (New York), 283, Aug.
Raymond's Disease, A Case. Benj. F. Lyle and John E. Greive, (Cincinnati), 310, Aug. 10.
Progressive Hardness of Hearing and its Arrest by Surgical Removal of the Incus. Charles H. Burnett (Philadelphia) 310 Aug. 17.
The Difficulties Attendant upon the Proper Treatment of Diseases of the Ear in Dispensary Practice. Francis R. Packard (Philadelphia), 310, Aug. 17.

Ménière's Disease. S. MacCuen Smith (Philadelphia), 310, Aug. 17.
Ear, Nose, and Throat in Dispensary Practice. W. G. B. Harland (Philadelphia), 310, Sept. 7.
Graver Complications of Chronic Purulent Otitis Media. H. F. Waterhouse (London), 120, Sept.
Forty-Two Cases of Goitre Treated by Operation. A. Marmaduke Sheild, 120, July.
Otology as a Compulsory Subject in Medical Education, from the General and the Special Points of Views. (Editorial), 183, Sept.
Some Details in Eustachian Catheterization. Dundas Grant, 183, Sept.
A Case of Primary Hæmorrhagic Otitis Media. H. J. Curtis, 225, Aug. 17.
Su due casi di polipi sanguinanti non impiantati sul setto. Salvatore Citelli (Torino), 56, xii. 1.
A proposito di una cellula speciale dell' apofisi mastoide. S. Citelli, 56, xii. 1.
Due casi di anomalia del padiglione dell' orecchio di cui uno seguito da operazione. Giulio Martuscelli (Napoli), 56, xii. 1.
Contributo alla casuistica dei tumori maligni dell' orecchio medio. Giuseppe Garbini (Messina), 56, xii. 1.
Contributo allo studio sulle sordità eredo-sifilitiche tardive. Margaria, 56, xii. 1.
Sue significato eziologico delle forme blastomicetiche nellę tonsille. Dottori E. Bertarelli (U. Calamida), 56, xii. 1.
Casuistica Clinica—Leptomeningite e ascesso sopradurale mastoidite primitiva da tifo. Ascesso mastoideo con fistola conducente nella doccia sigmoidea. T. Bobone (San Remo), 56, xii. 1.
El proceso del tratamiento quirúrgico de la otitis esclerosa ante el Congreso de Otología del año 1900. Georges Laurens (San Antonio), 126, 15 y 30 de Junio.

LARYNGOLOGY.

Laryngeal Diphtheria. Joanna D. Crawford, Minneapolis Hom. Mag., Nov.
The Persistence of Diphtheritic Bacilli in Chronic Discharges from the Middle Ear after Their Disappearance from the Throat. Howard P. Bellows, 285, l. 1.
Œdema of the Larynx. H. E. Smyth (Bridgeport, Ct.), 215, xi. 5.
Iodated Milk (Sclavo) in Rhino-Laryngeal Therapeutics. Gherardo Ferreri (Rome, Italy), Idem.
Cleft Palate and its Relation to Speech. G. Hudson Makuen (Philadelphia), 9, ii.

Diagnosis of Primary Laryngeal Tuberculosis. P. S. Donnellan (Phila.).
Tetanus Complicating Diphtheria. Frank J. Powers (Baltimore), 9, ii.
Intubation of an Infant Seven Days Old. Geo. M. Bailey (Providence, R. I.), 9, ii.
Paroxysmal Coryza, Nephritic in Origin, Simulating Hay Fever. H. Lowenburg (Phila.), 9, ii.
Bloodless Enucleation of the Tonsils under Local Anæsthesia. Royce D. Fry, 155, xviii. 18.
Dangerous Hæmorrhage after Removal of Enlarged Tonsils and Adenoids. A. C. Getchell (Worcester, Mass.), 175, xxxvii. 14.
Primary Syphilitic Lesion of the Faucial Tonsil. Geo. E. Stout (Phila.), 175, xxxvii. 15.
Tracheotomy in Breech Presentation. H. M. Stowe (Chicago), Idem, 16.
Removal of Foreign Bodies from the Air Passages. De Forest Willard (Phila.), 175, xxxvii. 17.
The Value of Throat Cultures in Diphtheria. M. H. Fussell (Phila.), 175, xxxvii. No. 20.
Clinical Significance of Chronic Hoarseness and Loss of Voice. P. W. Williams (London), Bristol Medico-Chirurgical Jour. Sept., xix. No. 73.
Paralysis of the Right Vocal Cord, due to Thoracic Aneurism. Barclay J. Baron, Idem.
The Progress in Diagnosis and Treatment of Affections of the Throat, Nose, and Ear during the Past Twenty Years. Same, Idem, No. 74.
Laryngeal Growths in Children. G. Hunter Mackenzie, 82, Sept. 28.
Recurrent Papillomata of the Larynx Treated Locally by Formalin. Adolph Bronner, Idem.
Multiple Papillomata of the Larynx. N. C. Haring, 82, Sept. 28.
Two Cases in which Chronic Hypertrophic Laryngitis Preceded Papillomata. Wm. Lamb, Idem.
Difficulties and Insufficiency of the Commonly Accepted Theory of Adenoid Deafness. David McKeown, 82, Sept. 28.
Primary Chancre of the Tonsil. W. H. Kelson, 82, Oct. 26.
Local Treatment in Dis. of Upper Air Passages. Sir Felix Semon (Lecture I.), Idem, Nov. 2 and 9.
Recurrence of Laryngeal Papillomata after Tracheotomy. E. Mansel Sympson, 82, Nov. 9.
Tortuosity of Both Internal Carotids. G. H. Edington, Idem, Nov. 23.
Value of Examinations of Throat-Swabs as a Test of Freedom from Diphtheria. John A. Amyot, Canadian Pract. and Review, Toronto, xxvi. 12.

Causation of Paralysis in Diphtheria. Alex. C. R. Foulerton, and H. Campbell Thomson, 120, xi. 1, N. S.

Application of Physical Science to the Surgery of Diseases of the Throat and Nose. John Macintyre (Glasgow), 183, xvi. 12.

The Larynx—A Site of Infection in Certain Diseases of the Lymphatic Glands. Jobson Horne, Idem.

Note on Neisser's Test for Diphtheria Bacilli. L. Corbett, 225, clxi.

Laryngeal Growth with Thyrotomy. W. H. Kelson, 225, clxi.

Morcellement of the Tonsils. L. H. Pegler, 82, Sept. 28.

L'Aphonie de Boileau-Despréaux. A. Courtade, 15, xii. 12.

Arthrite Double Crico-Aryténoidienne Grippale. Mounie (de Paris), 21, xxvii.

Tuberculose Laryngée et Air Marin. Étude de Climathérapie. Massier (de Nice), 21, xxvii.

Pathologie Pharyngée de Paracelse. C. Chauveau, 21, xxvii.

Pince Laryngienne Antéro-postérieure à Fente Médiane. Suarez de Mendoza (Paris), 39, ii. An. 6.

De l'efficacité de la Sérothérapie dans la diphtérie et des funestes conséquences de son emploi tardif. Suarez de Mendoza (Paris), 39, 2e An.

Malformation Congenitale du Larynx. C. J. König (Paris), 42, xiv. 6.

Deux Cas d'Imperforation de la Narine Droite. Boulai, (Rennes), 42, xiv.

Les Bacilles dits "Pseudo-Diphtériques." Ch. Lesieur, 172.

Synthèse phonétique. L'Abbé Rousselot, 210, iii.

Mutisme hysterique simulant la paralysie pseudo-bulbaire. Rigal et G. Poix, 211, iii.

Traitement des néoplasmes du larynx chez les enfants. G. Hunter Mackenzie, 210, iii.

Un cas de papillomes récidivants du larynx chez un adulte traité localement par la formaline. Idem.

Papillomes multiples du larynx. N. C. Haring, Idem.

Deux cas de laryngite chronique hypertrophique ayant précédé l'apparition de papillomes. Wm. Lamb, 210, 11e An. iii.

Papillomes récidivants du larynx chez un enfant, après la trachéotomie. E. Mansel Sympson, Idem.

Traitement des néoplasmes du larynx chez les enfants. Walker Downie, 210, iii.

Nouvelles recherches concernant l'action de l'eau chaude sur les muqueuses aériennes superieures. Lermoyez et G. Mahn, 21, July.

Quelques cas curieux de corps étrangers du larynx. J. Garel (Lyon), 21, Août.

Les Maladies du Pharynx d'après l'Ayur-véda de Susruta (Livre de Médecine sacrée des Indous). C. Chauveau, 21, Sept.

L'Aérothermie dans les Affections des Premières Voies Respiratoires. Note Preliminaire avec Présentation d'un Appareil. U. Ambrosini (Milan), 21, Sept.

Pyorrhée Buccale symptomatique d'une Sinusite Maxillaire Chronique ; quelques considerations sur le Procédé de Caldwell-Luc. L. de Ponthière (Charleroi), 21, Sept.

Contribution à l'étude de la Laryngectomie. T. Della Vedova (Milan), 21, Oct.

Recherches sur la flore microbienne de la bouche des nourrissons. Xavier Lewkowicz (Cracovie), 40, Sept.

Fremdkörper in den Bronchien. Erwin Jürgens (Warschau), 265, Sept.

Ueber die Glandulæ parathyreoideae (Epithelkörperchen). C. E. Benjamins (Leiden). Beiträge zur Patholog. Anat. u. z. Allgem. Pathologie, Jena, xxxi. 1.

Der Kehlkopf muskulatur. Jörgen Möller (Kopenhagen), 49, xii. 2.

Laryngitis Submucosa Infectiosa Acuta. A. Onodi (Budapest), 49, xii. 2.

Zwei neue bronchoskopische Fremdkörperfälle. O. Wild, Idem.

Verhältniss zwischen Gesangsleistung und Singorgan. Georg Avellis (Frankfort), 49, xii. 2.

Genese der Rachenmandelhyperplasie. Oskar Brieger, 49 xii. 2.

Sogenannter Posticuslähmung mit Sectionsbefund. Jörgen Möller, 49, xii. 2.

Ueber einige Anomalien der Nebenhöhlen der Nase. Max Scheier (Berlin), Idem.

Eine aseptische Durchleuchtungslampe. Warnecke (Hannover), 49, xii. 2.

Ueber die Ossification des Kehlkopfs. Max Scheier (Berlin), 52, lix. 2.

Zur Histologie der Speicheldrüsen. Rudolf Krause (Berlin), 52, lix. 3.

Die Schildrüse bei Infections-Krankheiten (Sadaichi Kashiwamura (Japan), 54, clxvi. 3.

Zum ferneren Ausban meiner Theorie des oberen Schutzvorrichtungssystems. W. Lamann (St. Petersburg), 265, Aug.

Vollständige Fixation der Stimmbänder durch syphilitische Processe, beiderseitige Abductorenlähmung vortäuschend. S. Schraga (Belgrad), 265, Aug.

Operabilità dei tumori maligni per la via endolaringea. Y. Arslan (Padova), 56, xii. Fasc. 2.

Le fratture delle cannule da tracheotomia. Demetrio Galatti, Idem.

Ascesso peri-tracheo-laringeo dei bambini (Massei). Alfredo Filè-Bonazzola (Milano), 57, An. xxii. Fasc. 1.

Ascesso endo-laringeo ed ascesso peri-tracheo-laringeo. F. Massei, Idem.

Influenza della intossicazione difteriea sui processi di riparazione delle Soluzioni di continuo. V. Martinelli, 132, An. xi.

Sul significato eziologico delle forme blastomicetiche nelle tonsille. E. Bertarellie U. Calamida (Torino), 133, lxiv.

Sensibilità gustativa di alcune parti della retrobocca, e dell'epiglottide. F. Kiesow e R. Hahn, 133, An. lxiv.

Sulla presenza di ghiandole mucose pluricellulari intraepitelia nella mucosa del cornetto inferiore iperplasico. Salvatore Citelli, 133, An. lxiv.

Dieci casi di intubazione della laringe. Domenico Tanturri, 131, 15 Juglio.

La Malattia di Basedow. D'Auria, 131, 15 Agosto.

Sulla efficacia della cataforesi iodica nella cura della ipertrofia della glandola tiroide. Iacopo Nardi (Napoli), 131, 30 Sett.

Sugli spasmi clonici faringo-stafilini con contributo allo studio della innervazione del velo. Gaétano Geronzi, 57, Otto.

Degenerazione amiloide sviluppatasi rapidamente nel decorso di una grave difterite gangrenosa della faringe. Carlo Comba, 229, lv. 3.

Velocità della secrezione salivare per dosi crescenti di pilocarpina. Deriu Antonio, 229, lv. 3.

RHINOLOGY.

Advances in the Treatment of Diseases of the Nose. H. Lambert Lack, 225, Nov. 2.

Operative Treatment of Saddle-Nose, with Two Illustrative Cases. Emanuel J. Senn (Chicago), 9, Aug. 23.

Practical Results with One Thousand Cases of Nitrous Oxide and Ether Narcosis. H. W. Carter (New York), 245, lx. 19.

Hæmorrhagic Diathesis in Operations on the Nose and Throat. E. H. Coffin (New York), 245, lx.

Abuse of Electro-Cautery in Nose and Throat Surgery. Irving Townsend, Jour. of Electro-Therapeutics, N. Y., Nov.

Tuberculosis of Upper Air Tract. J. Henry Hallock (Saranac Lake, N. Y.), 185, xiii.

Vocal Nodules. Chas. H. Knight (New York), 215, xi. 5.

Nose and Throat in the History of Medicine. Jon. Wright (Brooklyn), cont., Idem.

Some of the Bacteria Found in the Nose. Saml. Iglaner (Cincin.), Idem.

Nasal Deformity Corrected by Gersuny's Paraffin Prosthesis. A. C. Heath (St. Paul, Minn.), Idem.

Technique of Intra-nasal Operations. Alfred Denker (Hagen). Tr. and abr. Edwin M. Cox, N. Y., 37, xxx. 4 and 5.

Eye Diseases in Relation to Tuberculosis of the Nasal Mucous Membrane, and Treatment of Latter by Lactic Acid. V. Hinsberg (Breslau). Tr. Carl Mund (N. Y.,) Idem.

Foreign Bodies in the Upper Air-Passages. H. Wallace, Brooklyn Med. Jour., Jan., 1902.
Epistaxis. A. C. Tenney, The Clinique, Chicago, Nov. 15, xxii. 11.
Etiology and Pathology of Suppurative Diseases of the Accessory Sinuses of the Nose. A. Worrall Palmer (New York), 144, Jan.
Diagnosis of Accessory Cavity Empyema. Geo. B. Rice (Boston), 144, viii. 1.
Treatment of Suppurative Diseases of the Nasal Accessory Sinuses. Gustave A. Mueller (Pittsburg), Idem.
Rhinitis. H. J. Dadisett (Bombay), 155, xviii. 19.
Treatment of Nasal Suppuration. John Mackie, 82, Sept. 28.
Treatment of Nasal Obstruction other than Polypus, Idem.
Local Treatment of Tuberculosis of the Larynx, Idem.
Hypertrophy of the Anterior Lip of the Hiatus Semilunaris. J. Dundas Grant, 82, Sept. 28.
Morbid Conditions Simulating Adenoids. Wyatt Wingrave, Idem.
Removal of Tonsils in Adults. H. Lambert Lack, Idem.
Ethyl Chloride as a General Anæsthetic in Nasal Surgery. John Mackie, 82, Sept. 28.
Latent Nasal Polypi. W. R. H. Stewart, 82, No. 2138.
Severe and Long-standing Lupus Treated by Application of the X-Rays. Geo. H. Rodman, 225, clxi.
Lupus Vulgaris Treated by Exposure to X-Rays. T. Coke Squance, Idem.
Treatment of Whooping Cough by Nasal Irrigation. Edward Magennis, 225, clxi.
Headaches of Nasal Origin. Adolph Bronner, 225, clxi.
Chronic Epistaxis (Vicarious Menstrua?), Cauterization of Nose, Improvement. 225, Dec. 14.
Des Anomalies des Cavités Accessoires des Fosses Nasales. Max Scheier (Berlin), 42, xiv.
Mucocèle du Sinus Frontal et du Sinus Maxillaire du Mème Côté. Accompagné de Lésions Osseuses Raréfiantes. Luc, 42, xiv.
Rapports du Sinus Frontal Avec les Cellules Ethmoîdales. J. Mouret (Montpellier), 42, xiv.
Élargissement de la Racine du Nez, Occasionné par Polypes des Fosses Nasales. Lichtwitz (Bordeaux). 42, xiv.
Angine Eroso-Membraneuse (suite). C. J. König (Paris), 42, xiv.
Les Kystes thyro-hyoidiens. Victor Veau, 128, 129.
Acné hypertrophique du nez traitée par la décortication hermique. Léon Desguin, 210, iii.
États pathologiques simulant les végétations adénoïdes. Wyatt Wingrave, Idem.

Subcutane Paraffin-Injectionen. Ferdinand Alt (Wien), 265, Sept.

Die Beziehung der Siebbeinzellen zur Keilbeinhöhle mit besonderer Berücksichtigung des Sinus im kleinen Keilbeinflügel. Beaman Douglass (New York), 265, Sept.

Combination von tertiärer Lues mit primärem cylinderzellencarcinom an der Wandung der Nasenhöhle. Rudolf Michaelis. 455, xl. 2 u. 3.

Zur Technik der internasalen Operationen. Alfred Denker (Hagen), 455, xxxix. 3.

Ueber die Schallleitung zum Labyrinthe durch die demselben vorgelagerte Luftkammer (geschlossene Paukenhöhle). Kleinschmidt (Chemnitz), 455, xxxix. 3.

Contribution à l'étude des "Polypes Saignants de la Cloisson Nasale." Nadoleczny (Munich), 21, Oct.

Recherches expérimentales sur la fatigue par les excitations de l'odorat. Ch. Féré, 290, (Quillet), Aout.

Ancora sulla rinite caseosa. E. Guarnaccia (Cataria), 56, xii. 1.

Parata e risposta a proposito della rinite caseosa. De Rosa Michele, 56, xii. 1.

Ricerche sul rinoscleroma. Umberto Mantegazza, 229, lv. 3.

Notas de clínica rinológica. P. L. Pleláez, 333, 20 Seti.

Contribución al estudio clínico del rinoscleroma. F. Vásquez Gómez, 125, Agosto 15.

Deviazioni del setto nasale. T. Mancioli, 56, xii. 2.

Su una causa frequente del fetore boccale. G. Strazza.

La varietà morfologica adenoidea. G. Ostino e E. Gilardoni.

BOOK REVIEWS.

Some Thoughts on the Principles of Local Treatment in Diseases of the Upper Air Passages. Being Two Lectures delivered at the Medical Graduates' College and Polyclinic on October 2 and 9, 1901, with an Appendix consisting of Two Letters published on November 23, 1901, and on January 11, 1902, in the *British Medical Journal*. By Sir Felix Semon, M. D., F. R. C. P., Physician Extraordinary to H. M. the King; Royal Prussian Professor of Medicine; Physician for Diseases of the Throat to the National Hospital for the Paralyzed and Epileptic, Queen's Square. London: Macmillan & Co., Ltd.; New York: The Macmillan Co., 1902. All rights reserved. Pp. 130, uncut. Price 2*s.* 6*d.* net.

An exceptionally interesting broad-minded protest against operative intemperance that should be read by every specialist, and especially by every exclusivist. Sir Felix recognizes that it

is in the nature of things, when a part of the human body has been made more accessible to eye and hand, by the progress of our science, that the treatment of affections of that part should gradually change from the medical to the surgical or, at any rate, from the general to the topical side.

He is conservative as to the connection of adenoids and reflex neuroses, and considers it simply unwarrantable to promise positively a cure of the latter if only the adenoids be removed. The symptoms produced by adenoids may be simulated by effects of deformities of the nose and of the hard palate, as well as enlargement of the posterior ends of the lower turbinates. The operation for post-nasal adenoids should always be done under an anæsthetic administered by a competent anæsthetist. While acknowledging that genuine recurrences occasionally occur even after very thorough operations, he considers that, in the enormous majority of instances, the so-called recurrence is in reality a case of incomplete operation. He is convinced that if the patient lies with head well bent over the back of the operation table, and chloroform is given quietly and slowly by a competent anæsthetist, never pushed to the abolition of the cough reflex, there is no danger in the operation. Since giving up, several years ago, post-operative antiseptic injections through the nose, he has never had an acute ear complication.

Elongated uvula, varicose veins at the base of the tongue, and spurs of the septum are representative scapegoats for the explanation of all possible symptoms of the nose and throat, adenoids in children, and in adults enlargement of the lingual tonsil and hypertrophic rhinitis running them very close. Amputation of the uvula is required extremely rarely; its after-pain is sometimes very great and obstinate. The lingual varix bubble was pricked in 1896 by Dr. Herbert Tilley. The desperate trying to find in every case and at any price a local explanation is unsound, retrogressive, and greatly to be deprecated; to treat every tiny abnormality by chance existing in these parts as the real cause of the patient's symptoms is as little calculated to do good to the patient as to reflect credit upon the medical attendant. Operations should be thorough and local treatment efficiently carried out, but the severity of the interference should not be out of proportion to that of the disease. He condemns local treatment for leptothrix mycosis

as unnecessary; the disease is harmless and will usually disappear if the patient's mind is set at rest about it and he takes rest, change of air, outdoor exercise, tonics, etc. Complete turbinectomy should be performed only in the rarest instances; he has seen pharyngitis sicca as a result. J. L. M.

THE STANDARD MEDICAL DIRECTORY OF NORTH AMERICA, 1902. Including a Directory of Practicing Physicians in the United States of America, Canada, Cuba, Mexico, and Central America. Also Directories, respectively, of Medical Officers of the U. S. Army and Navy, Medical Societies, Medical Colleges, Medical Laws and Boards, Medical Publications (Books and Periodicals), Hospitals and Sanitariums, Mineral Springs, Drugs and Medicines, Medical and Surgical Products, Manufacturers, Life Insurance Companies, "etc." Chicago, G. P. Engelhard & Co., 358–362 Dearborn Street. Pp. 924.

An interesting book, the result of an immense amount of labor which might have been lessened without detriment by omitting the chapters on drugs and medicines and on medical and surgical products, etc., which are out of place in a directory. Much information of value and interest is given in the chapters on medical colleges, and societies, medical services of the United States, medical practice acts and examining boards. The list of mineral springs is disappointing, as it merely gives location and classification; analyses of the waters would be worth the space required. The names of the State Medical Examiners are omitted where there are three boards, as in this State; we can see no justification for this distinction. The population of the United States and its dependencies is estimated at 84,332,610, and the number of physicians, 115,222; less than 14 to 10,000. New York State has 12,062 physicians, a ratio of 16.59. There are 171 in the Philippines and 499 in Cuba. No attempt has been made to indicate the school or system of medicine, except upon the declared preference of the practitioner or the announced denominational teaching of the college of which he is a recorded alumnus. Of course we find errors in spelling names, etc., but these will be corrected in the supplementary monthly change sheets, without waiting for the 1903 edition. We trust that in the future editions note will be made of specialties in practice. J. L. M.

SAUNDERS' AMERICAN YEAR-BOOK. The American Year-Book of Medicine and Surgery for 1902. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A. M., M. D. In two volumes—Volume I, including General Medicine, octavo, 700 pages, illustrated; Volume II, General Surgery, octavo, 684 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1902. Per volume: cloth, $3.00 net; half morocco, $3.75 net.—Vol. II.

Each volume is complete in itself, and the work is sold either separately or in sets. Beside, a large number of text-cuts the Surgery volume contains five, and the Medicine volume four, full-page inserts. In every way the Year-Book of 1902 fully upholds, if it does not strengthen, the reputation won by its predecessors.

The only change in the editorial department is occasioned by the absence of Dr. W. W. Keen from the United States; Surgery is in charge of Dr. J. Chalmers Da Costa, assisted by Dr. J. H. Gibbon. As before, Drs. Hansell and Weber edit Ophthalmology, 48 pages, and Otology is a posthumous editorial work of the lamented Charles H. Burnett, covering 31 pages. Drs. Ingals and Ohls continue the Diseases of the Nose and Larynx over 26 pages.

Troncoso of Mexico suggests the separation, in schools, of children with normal vision from those who have some visual defect other than ametropia.

Astigmia.—A. Breuer (*Lancet*, June 1, 1901), obviates wearing cylindrical glasses by making a small punctiform burn, with a dull red 1-millimeter galvano-cautery tip, just inside the limbus, penetrating about one-half the corneal thickness for two or three seconds; the effect is opposite to that of corneal incision, increasing the refraction of the operated meridian, while incision decreases it. Burn under anæsthesia, the spot having previously been marked. It is always necessary to produce a considerable over effect, as much of the first result disappears in time, especially in children. (None of his reported cases had been operated on more than three months).

Myopia.—A. Oswald (*Beitr. z. Augenh.*, No. 45): Several

patients, after operation for high myopia, complained of diminished vision under lessened illumination, also of erythropsia. Panas (*Bull. de l'Acad. de Méd.*, May 1, 1901) operated with fine results, but six months later progressive lesions appeared in the choroid, ending in detachment of the retina and total blindness of both eyes. He reports a lad æt. fourteen, with M. 4D. and 5D., treated five months with instillations of pilocarpin and pressure bandage at night; the M. diminished to 3.50D. and 2.75D. E. Jackson (*Jour. Am. M. A.*, March 16, 1901), says that, for a given amount of myopia, the effect of removing the lens may vary 10D. or more.

Binocular Vision.—Trombetta (*Ann. Ophth.*, April, 1901) studied its evolution in a girl æt. ten, who had been successfully operated for congenital double cataract. In forty-five lessons he taught her to see and to have binocular vision, without the aid of the sense of touch. Binocular vision is not established until the retinal reflex of convergence ("attention") is aroused. Before the twenty-fifth lesson, when the child's attention was directed to a bright nearby object, one eye would fix and the other wander up and out and oscillate. At the twenty-fifth lesson it was discovered that she had perfect binocular fixation and stereoscopic vision.

Leprosy.—During and Fratas (*Jour. des Pract.*, January 5, 1901) in ten cases found a large round spot, near the vessels around the macula, surrounded by a number of yellowish white spots; they consider this pathognomonic. Others have verified this finding.

Pupil.—T. Lauder Brunton (*Brit. M. J.*, December 1, 1900), has noticed in alcoholic neuritis rapid and extensive reflex to light, and contraction upon accommodation, slight and sluggish or absent—the reverse of the Argyll-Robertson pupil.

Ocular Symptoms of Intra-nasal Disease are (1) Persistent injection of the vessels of the ocular conjunctiva, with prominence of the muscular branches, and often with passive œdema of the retrotarsal folds. (2) Persistent, "nagging" neuralgia, associated with distressing functional disturbances of the eyes.

An obstinate one-sided optic neuritis, in a woman æt. twenty-one, disappeared only after removal of adenoids.

According to Vail (*A. J. Ophth.*, May, 1901) there are: (1)

Acute fulminating retrobulbar neuritis, due to compression of the optic and ophthalmic divisions of the fifth nerve by swelling of the sphenoidal cavity walls; (2) acute retrobulbar perineuritis and optic leptomeningitis, due to infection from the nose via the lymph channels; (3) retrobulbar optic neuritis secondary to optic venous thrombosis—of nasal origin in the vast majority of cases.

Chalazion has been cured, absorbed in two to eight weeks by rubbing into the skin of the lid over the tumor, once a day, pure iodine, 3 grs.; potass. iod., 9 grs.; aq. destil., 12 drops; lanolin, 1 dram.

Ophthalmia Neonatorum.—Crédé's method has been vigorously attacked from several quarters during the year; 0.2 per cent., methylene blue, instilled several times a day at the slightest suspicion of disturbance, is prophylactic. Dilute potassium permanganate is suggested. The pneumococcus, streptococcus, and the Koch-Weeks bacillus produce much the same clinical picture as the gonococcus. Guerolo, in a large number of cases, treated one eye with 2.5 per cent. silver nitrate and the other with 50 per cent. protargol, with vastly better results from the latter. It is safe even with considerable corneal lesions.

Dionin.—Darier (*Bull. de l'Acad. de. Méd.*, April 17, 24, 1900) has found 5 per cent. effective in glaucoma and to relieve pain in corneal and uveal inflammations, instilling two or three drops every few minutes until chemosis occurs. Hansell tried it in non-specific iritis, aggravating both pain and inflammation. [We found an occasional drop afford prompt relief of pain, diminution of tension, and slight mitigation of inflammation in a particularly obstinate and virulent rheumatic iridocyclitis; atropin and scopolamin were being used for the intractable posterior synechiæ].

Ulcus Serpens should be called *pneumococcus ulcer* of the cornea, as Dotsch (*Die ophth. Klinik*, October 5, 1900)—ninety-eight cases—absolutely confirms Uthoff and Axenfeld, in holding the pneumococcus responsible.

Cataract.—Pagenstecher (44 *Jahrsber. der Augenh. f. Arme*) decides after opening the anterior chamber whether to perform iridectomy; if the iris shows no disposition to retract, he excises a portion of it. Silfoast's contra-indications for simple extraction are: glaucoma, narrow unyielding pupil,

luxation of the lens; if the iris cannot be completely replaced, or when it shows a tendency to prolapse; when narcosis is necessary, and if the patient has a cough. The tendency among all Indian operators is to simple extraction. Smith (*Lancet*, August 10, 1901), in all uncomplicated cases extracts the lens in its capsule without an iridectomy—1650 cases, with very good results. He claims that this operation is as simple as any other, "it leaves nothing behind to become opaque nor to set up iritis." In another paper (*Ind. M. Gaz.*, in *Ann. Oph.*, October, 1900), he gives statistics of 1804 extractions; of these 692 were extraction of the lens within its capsule without iridectomy, and 78 with iridectomy. In the former the iris prolapsed in 1 per cent., in the latter in 2 per cent. There was escape of the vitreous in 14 per cent. of these 770 cases, against 8.5 per cent. in the 1034 cases in which capsulotomy was done. Iritis occurred in 0.33 per cent. of the extractions of lens and capsule, as against 1.3 per cent. of these cases with capsulotomy.

Glaucoma.—Indications for Resection of the Cervical Sympathetic Ganglion.—If vision continues to fail, despite myotics, in chronic simple glaucoma; if iridectomy fails to cure the acute, chronic, or inflammatory forms; early in hæmorrhagic; is preferable to enucleation in absolute glaucoma with pain; and in secondary glaucoma fulminans after iridocyclitis. Coover thinks this operation will arrest the disease only in its early stages. The favorable results, according to other writers, appear to be but temporary. Ptosis and severe unilateral headache are quite sure to result.

Detachment of the Retina has been promptly cured—the patient seeing well on the next day—by subconjunctival injections of 30 or 60 minims of 2 per cent. saline solution (v. Winselmann, *Die ophth. Klinik*, February 5, 1901); 2 per cent., 4 per cent., and 10 per cent. solutions foster absorption of pathologic processes in proportion to their concentration, and are painless as well as harmless.

Thyroid Extract caused optic neuritis in five cases who had been taking it a long while for obesity.

Suppurative Perforation of the Membrana Tympani indicates, according to its location, the form of the disease, writes E. Leutert in *Münch. med. Woch.*, 47 Jahrg., No. 39, 40, 41; *Arch. f. Ohrenh.*, April 15, 1901. Perforation in the posterior upper

quadrant indicates isolated caries of the long limb of the incus. If the perforation in the membrana flaccida reaches the periphery, it indicates caries of the tegmen antri, the posterior wall of the antrum, and the innermost part of the posterior wall of the auditory canal. If in the flaccid membrane directly above the short process, it indicates caries of the head of the hammer; if behind the short process, caries of the incus. If the perforation involves not only the membrana, but extends into the osseous wall of the attic, it is an indication also that caries of the head of the hammer is present. If this form of perforation in the bone extend backward, hammer, incus, and antrum are carious, etc. He concludes that non-peripheral perforations of the lower segments are characteristic of isolated suppuration in the drum cavity. The drum cavity should be cleansed through the Eustachian tube and catheter.

These abstracts would repay an otologist for purchasing this book; and as much can be said for each of its departments.

J. L. M.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Ten volumes of the year's progress in medicine and surgery, under the general editorial charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. III. THE EYE, EAR, NOSE, AND THROAT, December, 1901. Chicago: The Year Book Publishers, 40 Dearborn Street. THE EYE, edited by CASEY A. WOOD, C. M., M. D., Professor of Clinical Ophthalmology, Medical Department University of Illinois; Professor of Ophthalmology, Post-Graduate Medical School; Ophthalmic Surgeon to St. Luke's Hospital, Chicago, etc. THE EAR, edited by ALBERT H. ANDREWS, M. D., Professor of Otology, Chicago Post-Graduate Medical School; Oculist and Aurist to the German-American Hospital, Chicago; Oculist and Aurist to the Chicago, Rock Island, and Pacific Railway, etc. THE NOSE AND THROAT, edited by T. MELVILLE HARDIE, A. M., M. D., Clinical Professor of Laryngology, Rhinology and Otology, Medical Department University of Illinois; Professor of Laryngology, Post-Graduate Medical School; Attending Laryngologist, St. Luke's Hospital, Chicago; etc. Pp. 346. 10 [good] plates and 25 [poor] woodcuts. Cloth $1.50.

A very handy résumé, that can be readily carried in the overcoat pocket and read in the cars or carriage—a fault we all practice, notwithstanding our preaching against it. The arrange-

ment is so systematic that the table of contents would seem to take the place of an index until we see how thoroughly this is done in 18 double-column pages. It is difficult to select from the numerous valuable points given in each department. J. Hinshelwood (*Ophth. Rev.*, Nov., 1900) had acute glaucoma in a woman æt. fifty follow instillation of a few drops of two per cent. cocain. He now employs holocain instead, if there be the slightest suspicion of glaucoma. Dr. Wood abstracts E. Heimann's *Open Treatment of Operation Wounds of the Globe* (*Münch. med. Woch.* Feb., 1901), adding that he has used this method—the shield or hollow bandage—for many years and heartily advises it, to the exclusion of the ordinary bandage. A few years ago this treatment after cataract extraction was advocated by one or two old-school operators as something new; the reviewer saw Dr. C. Th. Liebold use it—a mask—in 1876, and then not as a new thing, in the New York Ophthalmic Hospital; it was original with him.

Anæsthesia of the Drum Membrane with five, up to even twenty, per cent. cocain, dissolved in equal parts of absolute alcohol and anilin oil (A. A. Gray, *Brit. Med. Jour.*, Apl., 21, 1900, *Lancet*, Mch., 1901, Homer Dupuy, *The Laryngoscope*, July and Oct., 1901, and St. Clair Thomson, *Lancet*, Apl., 1901) is an important advance in technique now well established, although toxic effects have been reported; one from fifteen per cent. ad oz. was alarming. Dehydration of the outer layer of the m. t. is essential for penetration. By abstraction of water the tissues contract, leaving interstices through which the fluid penetrates to the nerve terminations in the deepest layers, aided by osmosis. Alcohol and anilin oil are both dehydrators, the high volatility of the former and the slow absorption of the latter concur in producing rapid but lasting anæsthesia, sufficient for any ordinary operation. After instillation of hydrogen dioxid and syringing with warm water the external meatus must be filled with the solution, the head of course reclined to the opposite side; anæsthesia is generally complete in ten or fifteen minutes. The canal should then be dried out with cotton.

J. L. M.

Elementary Ophthalmic Optics. Including Ophthalmoscopy and Retinoscopy. By J. Herbert Parsons, B. S., B. Sc., F. R. C. S., Curator Royal London (Moorfields) Ophthalmic

Hospital. Large 12mo, 162 pages. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, 1902. Price $2.00 net.

A good book for those students who wish to study the optics of the eye from a mathematical standpoint. All who aspire to be specialists should avail themselves of this book, as the trigonometrical formulæ are evolved with—upon a cursory review—but few saltatory "therefores." The propositions and deductions are italicized, and a short bibliography of the best works on this subject is added for the benefit of the advanced student. J. L. M.

MANUAL OF OPHTHALMOSCOPY FOR STUDENTS AND GENERAL PRACTITIONERS. By J. E. JENNINGS, M. D. (Univ. Penna.), Author of "Color Vision and Color Blindness," A Practical Manual for Railroad Surgeons; Formerly Clinical Assistant Royal London Ophthalmic Hospital; Fellow of the British Laryngological and Rhinological Association; Member of the American Medical Association; Member of the St. Louis Medical Society—and the ubiquitous "etc." Cloth. Pp. 180. With 95 illustrations and 1 colored plate. P. Blakiston's Son & Co., Philadelphia, 1902.

A well-bound, handy volume confining itself strictly to its subject, which it treats tersely and clearly. We see no reason, or excuse, for the author calling the shadow test "Retinoscopy-Skiascopy." The illustrations are more diagrammatic than realistic, especially the colored plate, but they convey their lessons if the students can make allowance for their exaggerations and check them by observations in the real eye. J. L. M.

THE DIAGNOSIS OF NERVOUS AND MENTAL DISEASES. By HOWELL T. PERSHING, M. Sc., M. D., Professor of Nervous and Mental Diseases in the University of Denver; Neurologist to St. Luke's Hospital; Consultant in Nervous and Mental Diseases to the Arapahoe County Hospital; Member of the American Neurological Association. Philadelphia, P. Blakiston's Son & Co., 1901. Pp. 223, illustrated. Cloth, $1.25.

A valuable book, designed to show briefly, but clearly, what symptoms are the most important in a given case of nervous disease and how an analysis of the symptoms should lead to the recognition of the disease, somewhat as a "key" will help the botanist name a flower. The tables are preceded by a description of the methods of examination and by a brief discussion of the signs of organic disease, hysteria, and neurasthenia. Examina-

tion of the eye and of the ear are considered, of course, only from the neurologist's standpoint. That of the ear might well be a little more full and accurate; the eye is more important, and much more attention is devoted to it. A fine table or "key" of nine pages tersely weighs 36 causes of paralysis of the ocular muscles, intraorbital causes excluded. J. L. M.

ATLAS DER ANATOMIE DER STIRNHÖHLE, DER VORDEREN SIEBBEINZELLEN UND DES DUCTUS NASOFRONTALIS, mit Erläntern dem Texte und Bermerkungen über die Behandlung der Stirnhöhleneiterung. Von Dr. ARTHUR HARTMANN. Wiesbaden, Verlag von J. F. Bergmann. 1900.

Thus a collection of 24 of the most excellent photogravures, natural size, of section of the skull through the nasal cavity and its accessory sinuses, some sections of skull alone, and others including the lining membranes of these cavities. They give a true idea of the labyrinthine irregularity of these spaces and the great difficulty encountered in treatment of disease thereof. A full description of the characteristics of each figure accompanies it. The reputation that the author has obtained in treatment of diseases of these cavities, and in writing upon them, is a sufficient recommendation without ours, that every rhinologist should have this set of illustrations for study and reference. A. W. P.

DISEASES OF THE UPPER RESPIRATORY TRACT, THE NOSE, PHARYNX AND LARYNX. By P. WATSON WILLIAMS, M. D., London ; Physician in Charge of The Throat Department at the Bristol Royal Infirmary: Physician to The Bristol Institute for the Deaf and Dumb. Fourth edition. Illustrated. Longmans, Green & Co., 91 and 93 Fifth Avenue, New York. London and Bombay, 1901.

The manner of compilation of this volume is broad, as evidenced by the following paragraph : "Knowledge of any special branch of medicine carries special dangers unless it is tempered by good judgment; thus, in studying manifestations of disease in any one region of the body it is always essential to guard against narrow views and the undue estimation of local symptoms or abnormalities." And in other portions, *e. g*, embryology and anatomy of the nerves, it evidences minutia of detail almost equal to a German treatise. The color plates are very naturally

tinted, not the accentuated tints usually given to the student and which he never can find in the living or dead subject.

Beside these are 207 common cut illustrations and finally the grand characteristic of the volume, which I have never before seen attempted in the medical line—that is, about twenty stereoscopic views of some of the less frequently exhibited, but important, anatomical specimens. (Explanation: At first, on account of the difficulty in focusing for these stereoscopic plates, one is apt to think there is more theory than practice in this department. Have the lenses supplied with book properly centered,—the inter-pupillary distance is far too great,—and with a little practice the plate appears an exact counterpart of a post-mortem specimen.)

Although we cannot speak as highly in regard to the pathology in this book as some others, still on account of the other features we consider it one of the most valuable volumes of reference, and one which should be found in every specialist's as well as every modern practitioner's library. A. W. P.

PRACTICAL MEDICINE. By F. MORTIMER LAWRENCE, A. M., M. D., Assistant in Practice of Medicine, Hahnemann Medical College; Chief of Medical Clinic, Hahnemann Hospital Dispensary, Philadelphia. Philadelphia, Boericke & Tafel, 1901. Price $3.00. By mail, $3.25.

This is a quite clearly written and very concise compilation of the characteristic principal parts in ætiology, symptomatology, diagnosis, and prognosis of all diseases except those of the eye and ear. On account of its brevity and the easily distinguishable manner in which the different divisions of a subject are set forth, as much because of the excellent typography as lucid phraseology, it is adapted to the beginner in the study of theory and practice; the senior student would be able to digest a deeper or more extended treatise, on the more common diseases. As the student should have some idea of the diseases of the eye and ear, we hope that the author will include short sections on these subjects when he produces a second edition. A. W. P.

THE HOMŒOPATHIC PHARMACOPŒIA OF THE UNITED STATES. Published under the direction of the Committee on Pharmacopœia of the American Institute of Homœopathy. Second edition. Boston: Otis Clapp & Son, Agents, 10 Park Square, 1901.

Although this edition is practically the same as the first, except a few important additions and corrections, still for the information of those who have not this valuable volume, but who should by all means own one, we would summarize that in its 674 pages are treated 607 drugs, all those that have been used homœopathically. Of each drug are given the Natural Order or Chemical Symbol, Synomyms, Description, Habitat, History, Parts Used, and Preparations.

To give this in full 54 authors of pharmacopœias, botanies, dispensatories, or cyclopedias have been consulted. General Pharmacy is dealt with in a concise, but comprehensive manner. To this is appended Tables of Weights and Measures, and directions for prescription writing, while the publisher has clothed all in excellent typographical style. A. W. P.

NEW INSTRUMENTS.

PETERSON'S TONSIL SNARE.*

Because of the necessity of a very thorough removal of the adenoid tissue of the throat to insure against its return, because this is frequently quite a bloody operation and not infrequently these patients are almost hæmophiliacs, we would like to call the attention of the profession to Peterson's Tonsil Snare, especially as it seems little known. We have found, that when bleeding is to be feared and anæsthesia is employed it accomplishes the object best of any instrument in our hands. When the wire is well placed over the tonsil it removes the gland more thoroughly than the guillotine; it seems to shell a hardened enlarged amygdala out, because the wire appears to cut through the attachment of the gland to the pharynx more easily than through the gland itself. On account of the lever arrangement constriction is accomplished quickly, thereby greatly lessening the duration of operation and pain. The amount of pressure required makes the long and heavy lever-like handles necessary, although they are not æsthetic in appearance. It is usually advisable to draw the tonsils into the loop with a pair of especially devised forceps.

A. W. P.

* Manufactured by Armstrong & Co., Indianapolis, Ind.

VOL. XIV. MAY, 1902. No. 3.

THE JOURNAL OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

EDITOR,
JOHN L. MOFFAT, M. D.

ASSOCIATE EDITOR,
A. W. PALMER, M. D.

EDITORIAL.

RETROSPECT OF LARYNGOLOGY.

ALTHOUGH little of a very original nature has been done during the last year in the study of nasal or laryngeal pathology or in additions to our therapeutic or surgical procedures, still progress is decidedly noticeable in the numerous improvements devised for the accomplishment of former ideas or procedures.

Dr. C. A. Parker, in the *Journal of Laryngology, Rhinology, and Otology*, has, we think, demonstrated by very careful and thorough experimentation that different portions of the nares are traversed by the respiratory currents, etc., than were formerly believed to be. The locality of the air currents, as the author shows them, the more easily and satisfactorily explain the effects of certain hypertrophies and the lesser importance of others. (Abstract of this article will be found in last issue of this JOURNAL.)

The effect of the normal and diseased nostrils upon the physical system at large is being more properly appreciated. Dr. Hoople says that "faulty pressure within the nostrils can cause asthenopia of both ciliary and external ocular muscles." Asthenopia of similar reflex origin has been reported cured by nasal operations by Maxwell de Schweinitz, Ziem, H. N. Poole, and others; while Loeb and Snow report cures of headaches as well as asthenopia with this procedure. R. Sattler, in the *Journal of the*

American Medical Association, considers the principal clinical symptoms in the eye of intranasal reflexes are (1) "Peristent injection of the vessels of the ocular conjunctivæ with prominence and distention also of the muscular branches, often accompanied by passive œdema of the retro-tarsal folds. Sometimes there is retraction of the upper lid and a peculiar stare. (2) Prolonged and severe suffering from continuous reading or close work, worse in the morning and gradually ameliorates during the day."

From Dr. W. Fliess' researches, published in a German periodical, he finds nasal reflexes affecting a still more distant sphere, to wit, the sexual organs. Both he and A. Schiff have relieved many cases of dysmenorrhea, and the former the pain of infectious herpes zoster, by anæsthesia of certain areas in the nares.

Those labyrinths of the skull, the nasal accessory sinuses, are still engrossing considerable thought, as they deserve ; because we are only beginning to understand their intricacies or variation in shape and location, etc.

In the *Laryngoscope* Dr. B. Douglas has a few very good illustrations of some of the not infrequent anomalies —cells in the greater and lesser wings of the sphenoid. A. Onodi has observed communicating canals extending from the maxillary sinus to the ethmoid and sphenoid. And Suarez de Mendozo reports in a French journal three cases in which there existed supplemental frontal sinuses behind the normal ones, each having separate communication with the nasal cavity.

These frequent anomalies explain the reason why sinus diseases are so very difficult of treatment and the results occasionally unsatisfactory.

The new operation of opening the sphenoidal sinuses through the antra devised by Jansen was described this year.

Besides the accessory sinuses the other most thoroughly studied and widely written subject is phthisis. In a well-written article read before the British Congress of Tuberculosis Mannia Mignon directed the attention of the pro-

fession to the great importance of the healthy nasal fossæ in the prophylaxis of phthisis. The normal nares are equipped in various ways to keep extraneous substances from entering the respiratory organs, and tubercular bacilli are such.

Then again this dread disease has been found in a new locality. A case of carefully diagnosticated tuberculosis of the maxillary and sphenoidal sinuses, with operation thereon, was described by Rudolph Pause in Frankels' *Archiv. f. Lar.*

For laryngeal phthisis two apparently scientifically compounded remedies have been extensively used and highly recommended by the profession in Germany. These are (1) Phenosalyl, a combination of carbolic, salicylic, and lactic acids, and menthol,—this is second only to corrosive sublimate in antiseptic qualities, while it is far less poisonous,—and (2) Thiocol.

While speaking of treatment, we should mention as an improvement the bipolar brush electrode devised by E. Richter for the intra-laryngeal electrization of the motor nerves of the larynx.

Finally, we are glad to see that the necessity of using a general anæsthetic for the proper performance of adenotony and tonsillotomy is being recognized. In the *Journal of American Medical Association* a convincing article by Dr. O. T. Freer may be found. We also notice that rectal anæsthesia is being experimented with for throat and nose operations and is considered by Buxton to have great practical advantages.

A. W. P.

LYMPHOID HYPERTROPHY: ÆTIOLOGY AND PATHOLOGY.

IRVING TOWNSEND, M. D.,

New York.

THE literature of this subject has accumulated rapidly within the last few years as its importance has become more fully recognized. I shall only attempt to review briefly some of the accepted theories and the deductions of a few recent contributors from their study and research.

It is understood that lymphoid hypertrophies are enlargements of all the so-called tonsils—structures normally present in the healthy throat. The causes may be comprehended under the following general classification: heredity, local inflammations, infection.

It is difficult to decide the relative importance of each, as several causes may co-operate in a given case; this, in fact, being the rule rather than the exception. In the entire range of medical research there is no subject more attractive, nor one presenting to the mind of the investigator more intricate problems. It involves the study of ancestral inheritance, physical development of the fœtus and the individual until maturity, as influenced by environment, etc. This accounts for the conflicting statements and theories of different authors, in most of which there are doubtless elements of truth.

The *hereditary influence* is commonly ascribed to a taint of syphilis or scrofula transmitted from the parent, but there is absolutely no clinical evidence to substantiate this belief. Tubercular predisposition may be discarded for the same reason. If we exclude the diseases mentioned, it

is apparent that heredity has still many claims to recognition as a potent ætiological factor. Among them may be mentioned a predilection for excessive nutrition and overgrowth (possibly a tropho-neurosis) of this tissue; greater liability to inflammation; and anatomical peculiarities exhibited by successive generations. Is it not more rational to attribute this proneness to lymphoid hypertrophy (which may be manifest in several members of a family); to the fact that parents endow their offspring with the same tissue defects they possess, as well as their physical and mental qualities and susceptibilities to certain diseases? This would seem a simple and reasonable explanation of the important, but variable, influence of heredity in its relation to these growths. Although many doubtful points remain unsolved, it will in my opinion be a long step in advance when we discard the theory that these hypertrophies are due to the inheritance of some specific disease.

The theory has been advanced by embryologists that these growths are due to an arrested fœtal development; and the fact that they usually disappear between puberty and adult life is cited as proof of their rudimentary character.[1] Hypertrophy is most frequently caused, however, by a succession of attacks of acute inflammation, the acute infectious diseases, acute inflammation of the gland itself, or inflammation due to a streptococcus or similar infection. Its relation to tuberculosis is important. There can be no doubt that some of these glands become tuberculous.[2]

Morton's experience leads him to believe that ninety per cent. of all the cases that occur are the result of congenital processes; and that attacks of measles, diphtheria, scarlet fever, etc., only act as exciting causes, serving to increase hypertrophy of the lymphoid tissue which was abnormally present when the children were born.[3]

That these structures are present in the throats of nearly all the warm-blooded animals, and undergo processes of development similar to those in man, discredits this theory. Their tendency to disappear after puberty might be explained by the direction of the nutritive forces to the

organs of procreation. The following extracts from the *Year Book of the Nose, Throat, Eye, and Ear* are interesting in their bearing upon this subject:

A. De Simoni treated several cases of adenoids with thyroidin, basing his treatment on Hartoghe's theory that adenoids were one of the manifestations of myxœdema. He obtained favorable results in three cases of middle-ear disease due to adenoids.[4]

Lalatta found only 2.4 per cent. of cases of adenoids in a clinic of 2657 ear, nose, and throat patients in Parma.[5]

A. Cobbledick, in 1668 cases of adenoids, found 32 per cent. in children under six years; 54 per cent. between six and sixteen; and 14 per cent. in patients over sixteen.[6]

A. M. Corwin gives a good statement of the present views on the ætiology and prognosis of adenoids. He thinks the frequency of this lymphoid hypertrophy in children is much greater than the 3 per cent. of Chappell, and much less than the 33 per cent. of Harrison Allen. He would not remove a moderately enlarged pharyngeal tonsil unless it were producing symptoms.[7]

De Simoni found the bacillus of Frisch in the center of some adenoid tissue. As this bacillus is regarded as the specific one of rhinoscleroma, this discovery weakens that position somewhat. De Simoni is inclined to consider the bacillus of Frisch as a derivation from the pneumo-bacillus of Friedländer.[8]

Oft repeated inflammation is commonly associated with lymphoid hypertrophy, and when the occurrence of these attacks can be traced to a definite source the exciting cause of the hypertrophy will be found. These causes include the exanthemata, infectious and other diseases involving the upper air tract, particularly diphtheria, and those conditions arising from unsanitary surroundings—cold, dampness, sudden changes of temperature, etc.

The enormously increased danger to which a child with enlarged tonsils is exposed, in case diphtheria is contracted, is very evident and is generally understood. The fact that these hypertrophied tonsils (which are constantly more or less inflamed) offer an open door to infectious micro-organisms is well established. The streptococcus and staphylo-

coccus pyogenes—or the bacilli of diphtheria and tuberculosis—may invade the lymphatic system through these tissues, and the disastrous consequences liable to result are too well known to make further mention necessary.

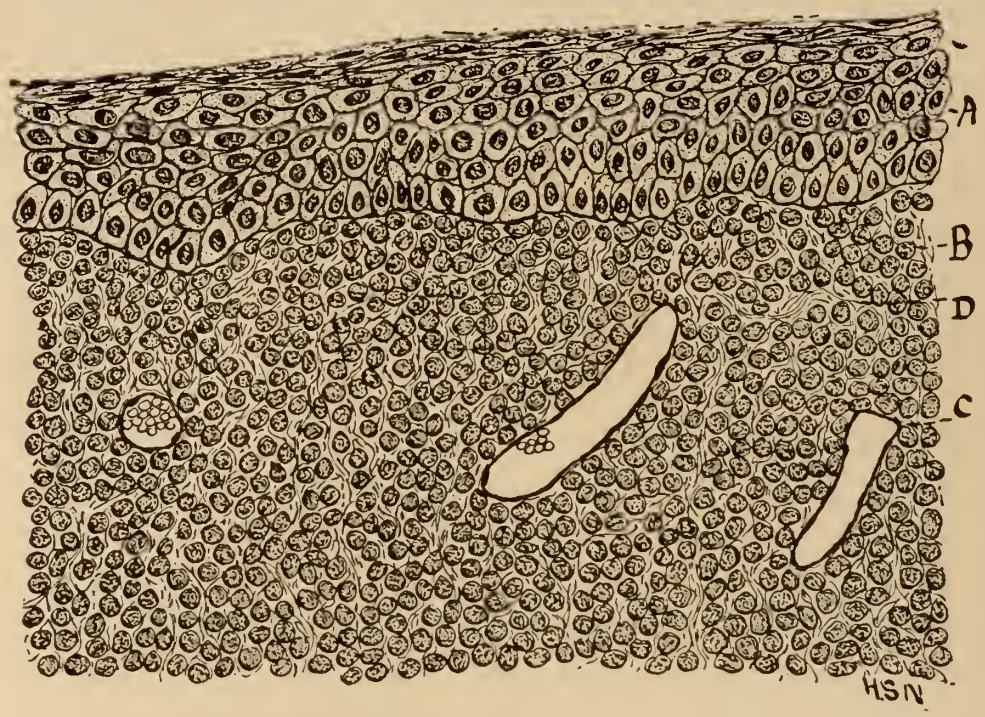
While these structures are histologically almost identical, it is necessary to consider certain distinctive points peculiar to each. It must be borne in mind that they undergo no uniform metamorphoses, but tend to increase and diminish at different periods of life, although in a general way their location determines the time of maximum development.

Hypertrophies of the faucial and pharyngeal tonsils are most likely to occur in young children, and after puberty they have a tendency to disappear gradually under favorable conditions; but they frequently persist until after middle age. The faucial tonsils are more exposed to inflammations and infections, owing to their location in the alimentary tract and accessibility to a variety of disease germs often present in the oral cavity. The tonsillar crypts and the pockets formed by adhesions between the tonsils and faucial pillars furnish lodgment for food and other irritating substances whereby they become suitable culture fields for bacilli, as well as centers of infection by which hypertrophy may be indefinitely prolonged and the throat kept in a constant state of inflammation. While this has only an indirect bearing on the subject, its importance will justify the emphasis made.

Hypertrophy of the lingual tonsil, on the contrary, is usually observed in adults, and though sometimes present during childhood seldom requires any attention until later years. From observation of these cases I am convinced that gastric derangement, rheumatism, and infection (either from the tonsillar crypts or directly) are frequent causes of the lingual hypertrophy.

The so-called tubal tonsils, and the growths on the lateral pharyngeal walls and elsewhere, are generally associated with an exuberant development of lymphoid tissue, and are only important when their presence causes troublesome symptoms.

An interesting theory is advanced by M. Labbe, who thinks that the tonsils take an active part in the formation of the blood. The lymphocytes are here transformed into mononuclear leucocytes with incessant karyokinesis. He



SECTION THROUGH LYMPH FOLLICLE OF NORMAL TONSIL
X580
No 1.

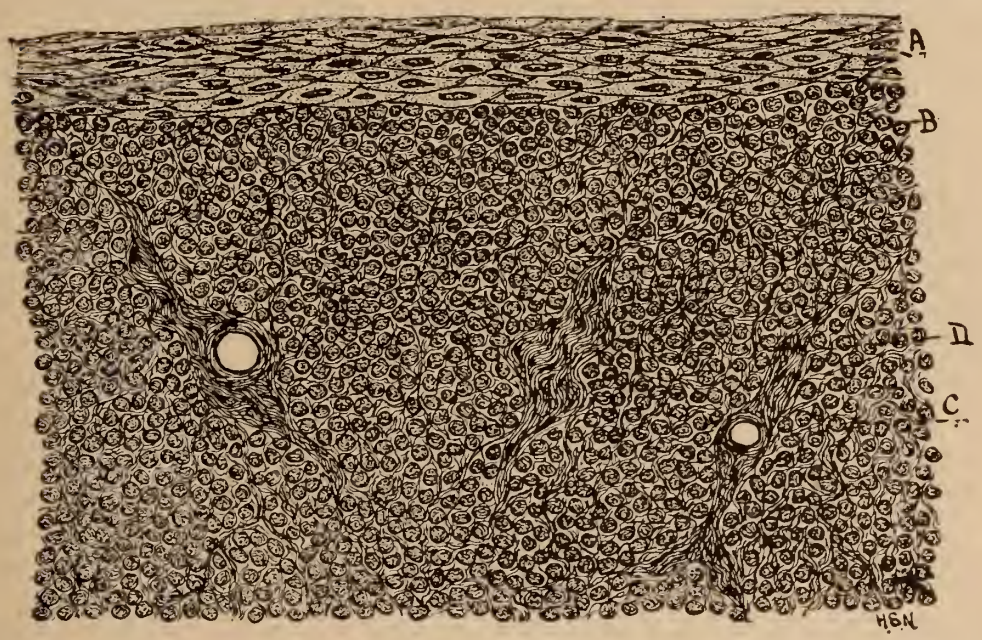
A. STRATIFIED EPITH. C
B. SECTION OF LYMPHO
C. BLOOD VESSEL
D. SLIGHT CONNECTIVE

also thinks that the oxidants and ferments secreted by the white corpuscles may aid in starchy digestion in the mouth.

The follicles with their large extent of epithelial surface defend against germ invasion.[9]

This Section shows the tonsil to be covered with a stratified epithelia composed of flat cells (the columnar and transitional forms having disappeared). The lymphoid tissue is separated by marked bands of dense connective tissue, which is also found extending into the follicle. This fibrosis is present throughout the tonsils. Blood vessels present in moderate numbers, with thickened walls.

Cut II. presents the same general characteristics as No. I., but with a less pronounced development of connective tissue. Adenoid tissue shows a connective-tissue reticulum filled with lymphoid cells and having numerous blood vessels.



A Flattened Epith Covering
- Section through Lymph Follicle Chronic Hyp. x 580 B Lymphoid Tissue.
C. Blood Vessel
No II
D. New Formed Connecting Tissue

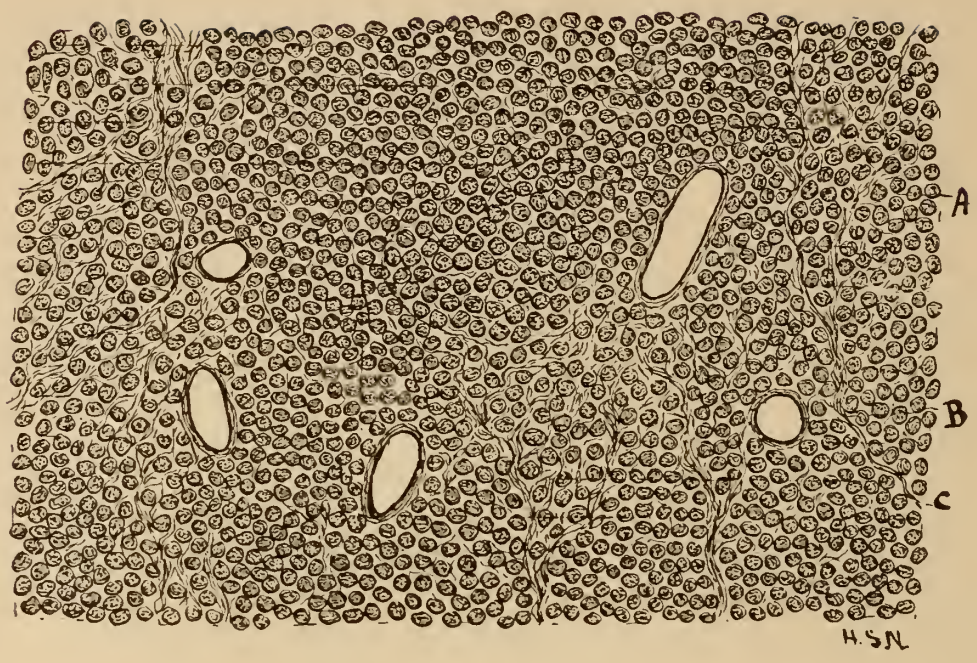
Diagnosis, Chronic Hypertrophy of Tonsil. This section was from a tonsil removed from the throat of a girl eight years old, and is of special interest because its structure does not show any peculiarity to account for the severe hæmorrhages which occurred at the time of the operation and again three days later.

Cut III., same as No. II. Diagnosis, Chronic Hypertrophy of Tonsil.

Cut IV. Section through tonsil showing follicles and crypt, with general structure of normal tonsil.

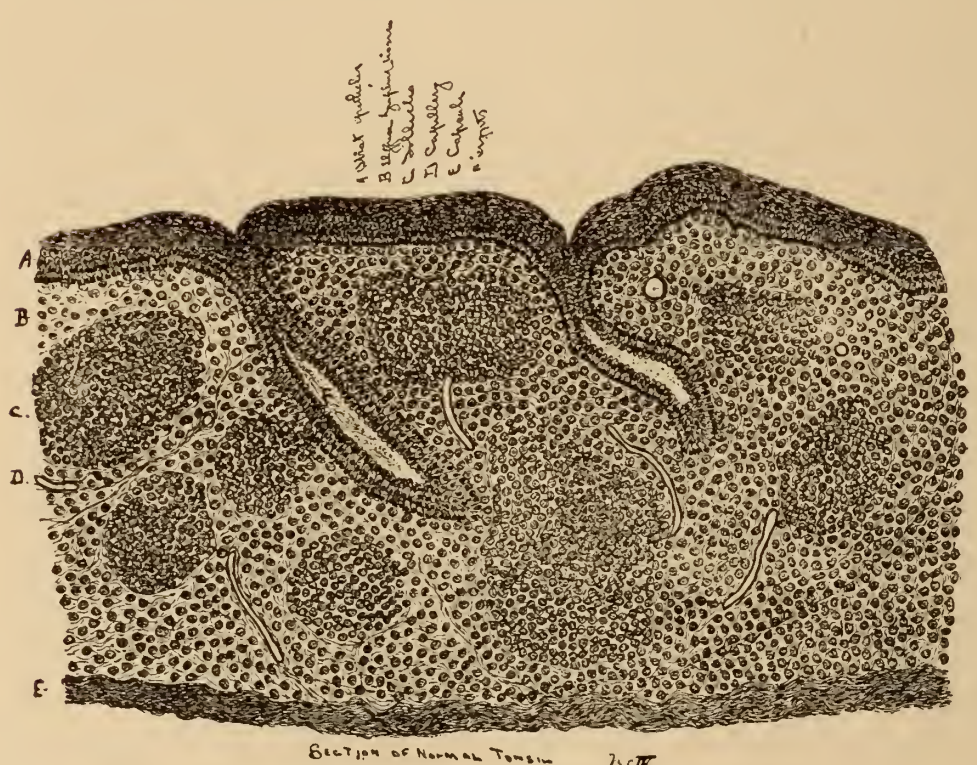
I am indebted to Dr. Howard S. Neilson for the microscopic examinations and the drawings from which these illustrations are copied.

Pathology.—"Adenoids are hyperplasia of tissue no r



ADENOIDS ×580.

A. LYMPHOID TISSUE.
B BLOOD VESSELS.



SECTION OF NORMAL TONSIL

mally present, and should be considered pathological only when the functions of other parts are interfered with, or when secondarily diseased. The principal mass is composed of lymphoid nodes, identical with the solitary follicles of the intestine, held together by a reticulum. Normal atrophy occurs from pressure by contraction of the maturing embryonic tissue." [10]

This conservative definition is a very satisfactory one, though perhaps not radical enough to meet the approval of those who steadfastly maintain that an enlarged tonsil is always a diseased tonsil.

Packard defines the tonsils as "groups of lymphadenoid tissue covered by a plicated and involuted mucous membrane, the latter differing only in extent and arrangement from that present in the neighboring parts." [11] As the tonsils have been traced through the reptiles up through the higher animals to man, they cannot be considered as evolutionary vestiges.

From experiments by various investigators it is demonstrated that previously healthy tonsils cannot only be invaded by, but can soon rid themselves of, micro-organisms, and also that micro-organisms are capable of passing through the mucous membrane and the lymphadenoid tissue of the tonsil and entering the blood. His conclusions are :

1. That tonsils are useful and active organs whose function it is to offer a barrier to the entrance of organisms into the deeper tissues at a point which, by its location and construction, is very open to infection.

2. The tonsils act in this respect as do other lymphadenoid tissues in the body, as is best exemplified by the lymphatic glands.

3. That during the course of, or following, tonsilitis we may have occurring most of the important complications of typical acute rheumatism.

4. That acute articular rheumatism is an infectious disease, dependent possibly upon no one organism, but upon a variety of bacteria.

5. That the phenomena of rheumatism can be accounted for by toxin absorption.

6. That the toxin causing rheumatism may be produced by an attenuated micro-organism.

7. That it is possible that the frequent entrance of the micro-organisms by the throat may explain the fact that we have acute articular rheumatism developing after an invasion of the throat, rather than the ordinary septicæmia or pyæmia, for the reason that just beyond the port of entry there is situated a collection of lymphadenoid tissue capable of restraining the growth of micro-organisms attacking the membrane which it protects.

8. That the terms rheumatic pleurisy, rheumatic purpura, rheumatic erythema, and rheumatic sore throat, should be used with less freedom ; and that it would be more correct to look upon them as the result of infection—whether accompanied or not by articulate phenomena—rather than as latent, absorbed, or incomplete forms of a condition produced by an unknown, mysterious, and intangible rheumatic poison.[11]

Primary tuberculosis of the tonsils is not common, but from time to time well-authenticated cases have been reported by the following well-known authors:

F. Baup, in 48 tonsils (48 individuals), faucial and pharyngeal, of persons otherwise free from tubercular disease, found larval tuberculosis in one pharyngeal tonsil removed from a child of fourteen years who had always lived with a tuberculous grandmother. Including his own, he gives a list of 841 tonsils examined by different investigators, with a total of 53 tuberculous tonsils—or about six per cent. In some of these, however, the individual may have been otherwise tuberculous. Heredity is a strong factor in these cases. In the matter of tonsillar sclerosis, Baup differs from other investigators in that he found sclerosis more common in the young than in the old.[12]

F. E. Friedman examined 91 autopsy cases and 54 living subjects with reference to the question of the faucial tonsil as a port of entry for tuberculous infection in young children. He concludes that tonsillar tuberculosis exists as a primary infection from food, and a secondary infection from

tubercular sputum, and that the former is the more frequent in young children.[13]

Labbe and Levi-Surugue find tuberculosis of the tonsils more common than is generally supposed, and more common in adults than in children. It may be in the form of ulceration, typical tubercular nodules with caseous or sclerotic changes, or diffuse infiltration.[14]

Rethi found tubercle bacilli in 6 out of 100 hypertrophied tonsils removed from persons showing signs of tuberculosis. Rethi believes that hypertrophied tonsils should be removed in all cases, regardless of symptoms.[15]

Ozeki reports a case of primary tuberculosis of the tonsil. One in a thirteen-year-old girl showed marked hyperplasia and was responsible for a severe cough. The other was found post mortem. Ozeki also makes a careful report on 9 cases of secondary tuberculosis of the tonsils.[16]

Dr. A. Lewin, as the result of a study of 200 cases, wrote an exhaustive article on the subject of tuberculosis of the pharyngeal tonsils, the following being his conclusions:

1. According to our investigations, hyperplastic pharyngeal tonsils conceal tuberculous lesions in about five per cent. of the cases.

2. The tuberculosis is present in the so-called tumor form; it is characterized by the absence of surface indications of its presence—latent tuberculosis of the tonsil.

3. This "latent" tuberculosis may apparently be the first, and indeed the only, localization of the disease in the individual.

4. It is, however, generally associated with other tuberculous processes—generally of the lungs—which may, however, not have developed at the time the tonsil was operated on.

5. It is a comparatively frequent condition among those suffering from tuberculosis of the lungs.

6. It is found in the normal-sized tonsil as well as in the hyperplastic. Whether it may cause hyperplasia by the

development of some toxin is doubtful. It can, however, retard the normal involution of the tonsils.

7. Its part in the ætiology of hypertrophy of the pharyngeal tonsil is unimportant.

8. By removal of the tonsil, the disease may be removed, even though tuberculosis of the lungs be present.[17]

L. Lichtwitz and J. Sabrezes, from an examination of the *blood* in children with adenoid vegetations, found a slight increase of anæmia and leucocytosis; increase of the percentage and of the absolute number per cubic mm. of the large mononuclear cells; a decrease of the relative and absolute proportion of the neutrophile polynuclear cells.[18]

Wright claims that streptococci are absorbed when rubbed upon the surface of the tonsillar tissues of animals. Clinical evidences of the power of the tonsils to absorb infectious material are many. Thus F. A. Packard reports five cases of endocarditis, all of which were preceded by acute attacks of tonsilitis. In two of these cases the writer was certain that previous to the tonsillar inflammation the heart was sound.[21]

Mackenzie Johnson recently called attention to the fact that cheesy cysts occasionally occur in the crypts of the tonsils as well as in the substance of the so-called adenoid growths. They vary in form from small particles like grapeseeds to large masses the size of half an almond.[21]

In conclusion, I would call attention to the necessity of revising our ideas regarding the pathology of lymphoid hypertrophies and diseases of the tonsils in accordance with the facts demonstrated by modern investigators, as elucidated above. It has been shown that these structures are not only capable of causing serious trouble from mechanical obstruction, but that under favorable conditions they afford a suitable culture field and offer an open door to numerous pathogenetic organisms. To the thoughtful clinician the importance of this subject will be apparent.

67 West Forty-sixth Street.

BIBLIOGRAPHY.

1. Hardenburgh.

2. Norval H. Pierce—Hypertrophy of Pharyngeal Tonsil, its Anatomy and Physiology. Jour. of Am. Med. Assn., November 3, 1900.

3. J. P. Morton—Adenoid Vegetations. Canadian Practitioner and Review, August 3, 1900.

4. A. De Simoni—Gaz. d. Ospedali e d. Cliniche, February 11, 1901.

5. Lalatta—Abst. Internat. Centralb. f. Lar., etc., Berlin, October.

6. A. Cobbledick—Clinical Journal, London, May 16, 1901.

7. A. M. Corwin—Jour. Am. Med. Assn., Chicago, November 10, 1901.

8. De Simoni—Riforma Medica, Naples, Anno XV.

9. Labbe—Presse Méd., Paris, August 23, 1901.

10. Norval H. Pierce.

11. F. A. Packard—Phil. Med. Jour., April 21, 28, 1901.

12. F. Baup—Am. of Otology, Rhinology and Laryng., St. Louis, Trans. by Hiller.

13. F. F. Friedman—Deutsch. med. Woch., Leipzig, June 14, 1901.

14. Labbe and Levi-Surugue—Gazette Hebdomadaire, No. 92, 1899.

16. Ozeki—Abst. Internat. Centralb. f. Laryng., etc., Berlin, September.

17. A. Lewin—Archiv. für Rhinol. u. Laryngol., Berlin.

18. L. Lichtwitz and J. Sabrezes—Zeitschr. f. Psychol. und Physiol., B. X. H. 2.

19. Wright—N. Y. Med. Jour., June, 1900.

20. Mackenzie Johnson—Vide Jour. of Laryng., August, 1901.

THE EAR COMPLICATIONS OF LA GRIPPE.*

J. IVIMEY DOWLING, M. D., O. ET A. CHIR.,

Albany, N. Y.

SINCE the epidemic of grip in 1889–1890, the profession has become very familiar with the various phases of this infectious disease. The complications have been described and discussed extensively, but those of the ear seem to have occupied a less prominent position in the general discussion, although aurists frequently see patients who trace their first ear trouble to an attack of grip.

For practical purposes the ear may be considered as an offshoot of the naso-pharynx, and bearing this in mind it is easy to conceive the likelihood of the involvement of this accessory cavity whenever the naso-pharynx becomes affected with an inflammatory condition, and more especially when that affection is due to a virulent bacillus such as that isolated by Pfeiffer and others.

The naso-pharyngeal symptoms are often severe and simulate those of a rhinitis, with the engorged turbinated bodies, profuse secretion, stuffy ears, and naso-pharyngeal discharge.

According to Osler, "the bacilli are present in enormous numbers in the nasal and bronchial secretions of patients, in the latter almost in pure cultures. They persist often after the severe symptoms have subsided."

Given approximately normal nares and previous freedom from naso-pharyngeal catarrh, the likelihood is that an

* Read to New York State Homœopathic Medical Society, Albany, February 11, 12, 1902.

acquired influenza will not be complicated by severe aural symptoms.

In health the ciliated epithelium of the Eustachian tubes has a motion from the tympanum toward the pharynx. It is in cases in which the normal function of the Eustachian tube is destroyed that the most severe ear complications are observed. These factors are important elements in considering the final outcome of grip, and a prognosis in the early stages of the disease should take into consideration the possible involvement of the auditory apparatus.

From careful observation of the past two years it is the writer's opinion that the effects of grip upon the auditory apparatus may be designated as immediate and remote.

The *immediate complications* may vary from a simple hyperæmia of the tympanum and neighboring tissues to a severe purulent otitis media and mastoiditis.

The *remote effects* follow within a few months or a year or two and are due to the chronic hyperplastic inflammation set up within the Eustachian tubes, and as a result of the stenosed condition of the canals labyrinthine symptoms developed as evidenced in vertigo, and tinnitus, and objectively sunken and thickened membrana tympani and rotated mallei.

Bearing in mind these possibilities, the utmost care should be assumed to prevent otological involvement. If the patient has been suffering from a chronic naso-pharyngeal condition requiring treatment, it naturally follows that the acute naso-pharyngeal symptoms of influenza require still greater care, and for this purpose the nares and pharynx should be carefully cleansed of discharges, and the stuffy sensation within the nose combated by some drug capable of relieving the engorged turbinateds, and permitting easier nasal respiration. This treatment indirectly affects the ear by cleansing the region of the Eustachian orifices of infected discharges, and renders less likely any severe extension to the tympani.

If despite treatment the ears do become involved the first evidence complained of by the patient is earache, and

this symptom should call for the immediate inspection of the membrana tympani, and before serious involvement of the tympanum paracentesis should be performed. If expectant treatment is necessary, then dry heat is more soothing than other measures, combined with the proper remedies.

However, in this instance we are dealing with a virulent bacillus infection and radical measures are safest, for with a properly performed paracentesis, tension is done away with and we are able to treat the tympanum antiseptically with the proper germicidal solutions.

Delay means possible mastoid involvement with the necessity of an operation required to relieve that most serious condition.

An important consideration is the retaining as near a normal patency of the Eustachian tubes as is possible, and this may be done, when feasible to pass an instrument, by inflation through the Eustachian catheter, or if because of intra-nasal deformity its use is impossible, then inflation by means of Politzer's method is indicated, but a necessary preliminary in the use of either of these methods is the previous careful cleansing of the naso-pharynx.

Convalescence of the systemic disease ensuing and the aural complications subsiding with final recovery, it is then due the patient that an examination of the auditory apparatus be made to determine possible permanent injury or effects that may be overcome through treatment; and this examination is not complete unless the naso-pharynx is inspected and the degree of patency of the Eustachian tubes determined.

The influence of diseased conditions of the naso-pharynx over pathological conditions of the ear is no longer a matter of discussion, therefore treatment directed to the cure of aural conditions, subsequent to grip, requires operative measures for the removal of septal spurs, deflected septa, synechiæ, or any other pathological conditions within the nares.

The Eustachian tubes should be rendered thoroughly patulous by the use of bougies.

These measures are particularly indicated in young people giving a history of deafness in the family.

The consideration of cases from active practice are not alone interesting but instructive, therefore the following are submitted:

Case I.—Mr. R., æt. sixty-nine. This represents the immediate complications of the ear attendant upon an attack of grip.

The patient had been ill for about one week, confined to his room, but not to his bed. Having experienced some stuffy sensations in the ear like those noticed in previous colds in the head, he had thought little of them until severe pain in the right ear led him to mention the earache to his attending physician.

The pain being unrelieved by remedies, I was asked to see him. Examination revealed a much reddened and swollen membrana tympani, the nares were occluded, and it was found that the aural complication had selected the side in which there was a nasal obstruction due to a septal spur.

Without delay a free incision was made in the posterior inferior segment of the membrana tympani, allowing a free gush of muco-sanguineous matter followed by relief of pain and, later, copious discharge of pus.

The nares were cleansed and an attempt made to pass the Eustachian catheter, but on account of the septal spur this was impossible, so inflation was performed by means of Politzer's method.

This first paracentesis was performed March 6 and the ear continued to discharge more or less freely until April 23, when the ear was apparently well, hearing contact 60, but on May 6 he complained of pain again, which was only somewhat relieved by remedies and dry heat. Four days later it was again necessary to open the membrana tympani. The recovery from the relapse was rapid and by the middle of June he suffered no inconvenience, except that sounds were somewhat muffled and there was more or less tinnitus. This passed away while taking chenop. 3x.

Tests of the hearing taken one year after cure showed the following:

Watch, $\frac{50}{90}$; fork, B. C. 18 *sec.*, A. C. 50 *sec.*

Case II.—Miss C., æt. forty. This patient presented much

the same course as the former patient, with early involvement of the middle ear.

She was first seen April 2, 1901, and failed to respond to treatment, except that the earache was relieved.

Repeated paracentesis of the membrana tympani and cauterization of the resulting opening proved unavailing in establishing a free exit for the pus. The discharge was free one day and moderate the next, then again profuse.

Finally, the advisability of a mastoid operation was suggested but refused, so local and general treatment was continued, however without avail, for on June 16, pronounced mastoid symptoms appeared, the discharge ceasing suddenly and marked mastoid tenderness ensuing. The application of cold and remedies was followed with a subsidence of severe symptoms.

Discharge was re-established through the external auditory canal, but mastoid tenderness continued.

The time for further delay had passed and operation was insisted upon. A radical mastoid operation was performed on June 30 and the entire mastoid process found filled with decayed bone, decomposed blood, and pus. The ossicles were in good condition, so they were left *in situ*.

Recovery was as rapid as the previous ear disease had been prolonged, and normal function of the ear was finally established and the patient has since gone to a western State to live.

Case III.—Mr. H., æt. forty-eight. Represents the immediate and remote effects of grip.

Patient confined to bed with a severe attack of grip. Purulent otitis media followed within a week, both ears being involved, at which time I saw him in consultation, this being April 14, 1900.

Perforations having been established, it was not deemed necessary to enlarge them. Four days' treatment caused a cessation of discharge from both ears, and a week longer was necessary to establish sound membrana tympani. At this time the Eustachian tubes were found clear, but some injection along the handle of the mallei remained. Patient was given kali mur. 3x and advised to return in a short time.

However, he failed to do so as no trouble seemed imminent, but early in January of this year he came for examination, stating that he was troubled with noise in the head, localized to the left side and having lasted for six weeks. Examination of the

ears revealed almost complete stenosis of the left Eustachian tube, with hearing considerable impaired.

Treatment consisted in passing bougies through the Eustachian tube which revealed four distinct strictures ; these yielded to firm pressure and later the bougies were passed completely into the tympanum, the heads being recognized through the translucent membrana tympani.

At the present time the noises have greatly ameliorated and the patient enjoys excellent hearing and general health.

The ear that was affected by the remote effects of the grip is on the same side as an existing septal spur, which presses upon the inferior turbinated during any acute affection of the nares, but which does not prohibit the passage of a catheter.

All of these patients were affected with chronic naso-pharyngeal catarrh, and in two septal spurs were present on the side of the ears affected.

In one the patient is too far advanced in years to make operation feasible. In the other operative measures are under advisement. The third patient had no condition of the naso-pharynx that would be amenable to operative procedures, but requires treatment for her catarrhal condition.

Briefly, prevention is better than cure. The doctor who forestalls aural complications deserves greater credit than he who cures through treatment or operative procedures.

Attention to details is essential in the treatment of grip. The use of a properly applied nasal douche and pharyngeal spray or gargle of normal saline solution, Seiler's solution or any other similar preparation, will many times save the patient much suffering and possible loss of hearing.

Later treatment necessitates the accurate knowledge as to the condition of the ears, Eustachian tubes, and naso-pharynx, and any abnormalities of the naso-pharynx that might interfere with the cure of the aural conditions should be corrected by operation.

223 State Street.

A CONSIDERATION OF THE STENOPAIC SLOT AND PIN-HOLE DISC METHOD, FOR DETERMINING PUPILLARY DISTANCES OF LENSES.

E. W. BEEBE, M. D.,

Milwaukee.

THE paper of Dr. Warren Uel Reynolds, published in the January issue of this JOURNAL, under the vague, if not misleading, title of "The Stenopaic Method of Determining the Inter-axial Distance," originally appeared in the discussion of a paper by the writer, which was read at the last session of the American Homœopathic Ophthalmological, Otological, and Laryngological Society, on "The Uses of the Ortho-Phorometer." In the discussion the doctor took exceptions to the practicability of the instrument, and commended the "Stenopaic Slot and Pin-hole Disc" as a substitute therefor; this method being one, among others, which was condemned by the writer, as being too inaccurate for the use of those desiring proficiency in refraction work.

Being absent at the time, the writer did not have the pleasure of listening to the address, and was unaware of the substitute proposed until the paper appeared in the official organ of the Society, and it did not then appeal to him as meriting a reply, being satisfied the profession would pass judgment upon the criticisms and method suggested, according to their merits.

For some reason, best known to the author, the paper was republished in an amended form, as above mentioned, and, from the publicity given it, is now before the readers of the JOURNAL for discussion.

It is not possible that the author believed the method a new one, and it is therefore probable that he considered the device superior to that proposed in my paper, as well as the means commonly employed to obtain inter-pupillary distances.

Experience having led me to condemn the method as being inaccurate and undesirable, I beg permission to briefly state the objections to its use for the purpose suggested.

The doctor has modified his views somewhat since his paper first appeared, and no longer claims the method to be adapted to refractive patients in general, but limits its sphere of usefulness to cases of orthophoria, which from their infrequency renders its use objectionable, if for no other reason; as, with this limitation, it is applicable only to about two-thirds of the cases which fall into the hands of the refractionist.

We have the fact frequently demonstrated that, with moderately weak lenses, incorrect pupillary distances are of but slight inconvenience in orthophoria, and it is not unusual to observe people wearing frames, without complaint, which are much too narrow, or too wide, for them. There are many others, however, who are made so miserable by similar lenses with incorrect pupillary distances that near work is rendered almost impossible for them; hence, a certain number of people will accept lenses set in accordance with the findings of the slot and disc—by measurements with the rule, or without regard to pupillary adjustments at all; and other cases will frequently tax the skill of the expert for some time, before satisfactory pupillary distances will be obtained. It will be greatly to the advantage of the physician, therefore, as well as his patient, if he be provided with an instrument which is applicable to all conditions and cases, than to attempt the use of such objectionable methods, though they may be acceptable to a certain class of patients, under favorable conditions.

It is probable that the method suggested is quite as

accurate as are inter-pupillary measurements made by the rule, but not more so. The time expended, however, in making use of the discs is greater than when the usual method is employed, and as the test is a subjective one, errors are more likely to occur.

Without discussing at length the tendency of the images to prematurely fuse when using this method, it may be stated that it is often difficult to obtain satisfactory results by reason of the activity of the accommodation, for at one moment the discs will apparently coincide, and the next, adjustment of the frame will be necessary to cause them to assume the desired position, and when the point is reached where the two light discs are merged, if the accommodation be relaxed, the object paper may be brought to within a few inches of the eyes, and the discs will fuse as in the beginning, showing that mistakes are not only possible, but probable, when this method is used—mistakes which the operator can scarcely hope to control.

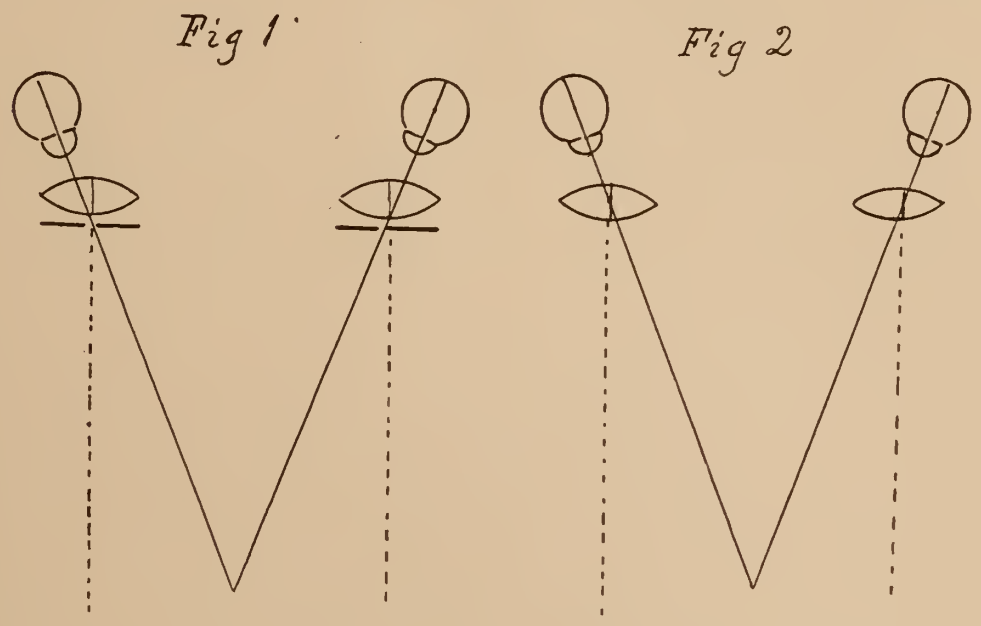
A more accurate test may be made by placing two discs in the trial frame, with small pin-holes in each, and when fused in a similar way to the slot and disc, they may be made to cross each other vertically, by alternately raising and depressing the sides of the frame while making the adjustment; this prevents, in a measure, the errors likely to occur with the slot and disc.

For obtaining inter-pupillary distances, for distant lenses, we are instructed by the author "to look at a cloud, and to adjust the trial frame until the light images overlap each other, when the required pupillary distance may be read on the index," etc. If the eyes were required to be used for distant objects only, this measurement might be satisfactory, but experience shows that, for all-round work, such a test will not give the desired result; as a pupillary distance so obtained will often prove too great for the comfort of the patient. An adjustment for a distance of twenty or thirty feet will be much more satisfactory, in the majority of cases.

Another substitute offered by Dr. Reynolds for work

which is successfully done by the Ortho-Phorometer is that suggested for the fitting of lenses, in cases of "horizontal heterophoria." It is believed that the process proposed is of doubtful efficiency, and that but few patients will accept pupillary distances so obtained.

It has been found impracticable to fully correct the esophoris, or exophoris, which may be present in a given



case, in lenses used for near work; but that which is desired, and which has long been sought for, is an instrument by the aid of which lenses which correct the refractive errors may be decentered in spectacle frames, by proper adjustment, so as to correct the least amount of the heterophoria, which will insure binocular vision and prevent muscular asthenopia.

But a moment's consideration is necessary to ascertain the fact that, when lenses are combined with the discs, in the trial frame, as suggested, measurements for distant vision only can be determined with precision, for when the eyes are converged for reading, or near work, the disc and lenses being on the same plane, it is evident that vision will be confined to the inner or outer half of the lenses, according to the position occupied by the discs; hence, prismatic effects are produced which prevent accu-

racy of results. The same is also true when measurements are made by the rule, in the usual way ; which subject was discussed by the writer, in a paper before the Ophthalmological, Otological, and Laryngological Society, in the year 1900, entitled " A New Method for Determinining Pupillary Distances of Lenses," and which appeared in the Transactions of that year.

By referring to Fig. 1, in the diagram, which represents pinhole discs before reading lenses, it will be seen that the visual lines pass through the outer half of the lenses, while in Fig. 2 they are through their optical centers, which is the position the eyes should assume, with reference to spectacle lenses, to prevent discomfort when they are worn for reading and near work.

173 Wisconsin Street.

OCULO-MOTOR PARALYSIS.*

G. N. SEIDLITZ, M. D.,

St. Louis.

PARALYSES of the cranial nerves are usually first seen by the physician in general practice. This, at least, has been my experience in respect to those innervating the ocular muscles, and the seventh nerve too, which is frequently affected through a morbid process or injury within the ear. The least, therefore, to be expected of everyone when consulted by such patients is the ability to make a correct diagnosis; the most, to treat them successfully as may be.

The motor oculi, or third nerve, controls all but two of the muscles of the eye, viz.: externally, the internal, superior, and inferior recti, inferior oblique; internally, the ciliary and sphincter pupillæ; in addition, the levator palpebræ sup. This leaves the external rectus supplied by the abducens or sixth, the superior oblique by the trochlear or fourth, and another extraneous muscle, the orbicularis palpebrarum, under rule of the facial or seventh. Thus we have, in a nutshell as it were, the entire innervation of the muscles that may be concerned in the varying movements of the eye. A little accurate knowledge of the anatomy and function of these parts is, therefore, essential to a ready diagnosis, if not to the treatment.

In point of frequency oculo-motor paralysis is second to that of the external rectus, the superior oblique being third. This information is the result of statistics, it is but little help in making a differential diagnosis. There does

* Read before the Missouri Institute of Homœopathy. April.

not seem to be any special reason why one sex should be more susceptible than the other, unless it be due to a difference in personal habits. The age of the patient is considered only as to whether, in a given case, we are dealing with a paralysis or not. I believe almost all ocular paralyses are observed in adults up to middle age except when congenital. Paralysis of an individual muscle shows itself essentially in limitation or abrogation of movement in the direction of its activity.

Bearing in mind the several muscles supplied by the motor oculi, if that is paralyzed we should look for restricted movement of the eye-ball in all directions save outward and somewhat downward. The reason a measure of downward movement is retained is because of the compensating action in this direction of the superior oblique. This is doubtless true when the paralysis is complete, but, as is well known, only one terminal branch of the nerve may be involved, not necessarily all at the same time.

The first symptom which suggests to us an affection of the third nerve is ptosis—a symptom which, if not plainly assignable to another cause, leads us to seek corroboration of our suspicion. It is possible, indeed, that ptosis may be the single symptom of the paralysis at hand ; again, it may sometimes happen that it will remain the single uncured symptom in a case having had at one time all the external muscles involved.

The symptom of second importance to the observer is diplopia. It is the most serious to the patient because the most annoying ; to an impressionable person, too, it may forebode disastrous results. Diplopia obtains at all distances, and the separation of the images from each other increases as the muscle is exerted in its respective direction. The determination of the true and false image, their relation to each other and their direction, is indispensable. This is made in a dark room with the aid of a candle or other flame and a red glass—a method too familiar to describe in details.

If we had to rely on the investigation of diplopia alone

for making a diagnosis, it is evident that a paralysis of the third nerve involving all its terminal branches would often confuse and sometimes mislead; a complex symptom-picture would present itself.

A mistake may even be made as to which is the paralyzed eye. This may occur in eyes having unequal vision from any cause; if the eye possessing normal vision be the one paralyzed it assumes the work of fixation while the other deviates. In this connection the mental attitude of the patient has much to do with the diagnosis, as the examination is purely subjective. When in doubt perhaps the easiest method of making a diagnosis from observation of the retinal images is by exclusion. After first determining which is the paralyzed eye, one should know that involvement of the sixth nerve declares itself when "diplopia appears in looking toward the paralyzed side and the lateral separation of the images increases as the paralyzed eye is abducted"; of the fourth nerve when there is "diplopia on looking down, the vertical distance between the images increases as the eye is depressed and adducted, their inclination toward each other increases with abduction, the lateral distance between the images decreases when the eyes are turned laterally in either direction."

It sometimes happens that there are but two symptoms indicating an affection of the third nerve, viz.: paralysis of the accommodation and paralysis of the sphincter pupillæ. Such cases are usually functional, manifested by dilatation of the pupil and inability to see near objects.

The position of the head, lack of stereoscopic vision, nausea, etc., are symptoms common to all ocular paralyses not peculiar to a given case.

The site of the lesion may be anywhere from the deep cortical origin of the nerve to the peripheral branches. According to the site of the lesion a given case may be either functional or organic, the latter kind may obtain, however, at any spot in the nerve tract. The cortical variety leans toward structural change in the nerve center or tract, the peripheral is apt to be functional.

The treatment will depend largely upon the cause. Successful results will often depend on prompt and vigorous treatment. This is especially important in oculo-motor paralysis, since more untoward conditions remain in an uncured case than with the other two ocular nerves. Oculo-motor paralysis is perhaps most frequently observed as a sequel of syphilis and rheumatism. A case due to either of these causes, if recognized, early is amenable to treatment. In the former, the commonly accepted anti-syphilitic treatment is in my opinion the desideratum; it must be adapted to the stage of the causal disease. The rheumatic cases that have presented themselves to my notice have always been grafted on a constitution depressed from overwork and faulty living. These are as a rule readily cured by correcting the patient's habits and prescribing rhus, bryonia, gelsemium, spigelia, or any other drug the case may demand. These just mentioned have served me well.

The most important local treatment is electricity, which is especially useful in non-syphilitic cases. Theoretically the galvanic current is the proper one to stimulate the paralyzed nerve. The ordinary method of application is through the closed lids. If applied to the conjunctiva directly over the muscle cocain must be used, and a case requiring many and frequent treatments must be cocainized each time, which might work harm to the eye. I have found that the faradic current acts equally as well. Finally, many cases are incurable; they become old paralyses; the patient must and will acquire monocular vision; the resulting deformities are to be relieved by surgery.

3333 Lucas Avenue.

SYMPOSIUM.

Have You Seen Bad Effects from Adrenalin Chloride?

F. B. SEITZ (this JOURNAL, March, 1901, p. 104) has seen sloughing in the nose. S. S. COHEN, acute œdema of uvula, palate, pharynx, and epiglottis (chloretone was the preservative). H. B. LEMERE, adhesive iritis and acute exacerbation, with adhesions, of favorably progressing iritis.

J. IVIMEY DOWLING: I have noticed a free coryza and a feeling of fullness after applying the 1 : 1000 preparation to, the mucous membrane of the nose. In one case a thin whitish membrane appeared over the turbinates and septum. This gradually sloughed away, leaving healthy membrane in its place. The forcible removal of the membrane caused bleeding.

M. A. BARNDT: The only bad effects that I have encountered in the use of adrenalin chloride is secondary hæmorrhage following operation. I have not encountered any other detrimental effects, but can see how a continued use of the stronger solution, by depleting the capillaries, may result in a sloughing of the mucous membrane.

JAMES A. SPALDING: Adrenalin chloride should be used with circumspection. I should treat every patient experimentally for the first few applications, thus discovering the proper dosage and the susceptibility of the eyes. I have used this remedy considerably, and have seen one case in which its use for scleritis was followed by a tremendously explosive inflammation of the iris, with increased tension, requiring the anxious use of eserine for several hours after.

SAYER HASBROUCK: Adrenalin chloride has so far given me satisfaction and I have used it very freely. I have in a number of cases seen very disagreeable secondary effects from its application to the nose in which the membrane puffed up and every

symptom of a severe acute coryza, lasting some hours, came on. I notice in connection with S. S. Cohen's case that Bloch reports, in the *Medical Record* for July 6, a similar case from the use of suprarenal powder, and he says he has also seen a similar case some years ago from a mixture of benzoinal and Dobell's solution (1:7) In this case he considered it an idiosyncrasy.

Adrenalin chloride is a powerful drug without any question, and should be used with care, the same as atropin and many other drugs in everyday use. In the suprarenal extract and adrenalin I believe we have one of the most useful additions to our drug armamentarium since the advent of cocain.

JOHN R. WINSLOW : I have had no bad effects from adrenalin chloride. My greatest experience has been with suprarenal extract and chloretone, from which I have at times seen evidences of nasal irritation.

T. L. SHEARER : I have never used adrenalin chloride itself. Profuse hæmorrhage followed the employment of extract of suprarenal capsule in a case of nasal enchondroma. Bleeding occurred about three-quarters of an hour after the patient left my office.

S. B. ST. JOHN, J. E. SHEPPARD, IRVING TOWNSEND : No bad effects.

WILLIAM R. KING : I have seen no bad effects and do not expect to, so long as I use it only in suitable cases. I use it preliminary to cutting operations in the nose, the throat, and the eye ; in the latter case only, however, for operations upon the muscles, lids, or other adnexa. I have never used it where I opened the eyeball, neither do I see any reason for its use in such cases. I use it for superficial eye operations, especially to keep the operative field clear of blood. I use it largely for the same purpose in the nose and throat, and so far, as I have above intimated, have never had a case where I could even remotely blame this preparation for anything going wrong.

DUNBAR ROY : I have used solutions of adrenalin chloride only in the eye, and so far have had no unpleasant experiences. In nose, throat, and ear work I use the powdered extract solution made fresh every day, and have never seen the necessity of changing to the adrenalin.

CLARENCE R. DUFOUR: I have used adrenalin chloride to some extent and as yet have never seen any ill effects from its use; on the contrary, I have seen very good results. As a controller and preventive of hæmorrhage I have found it of great service. I have used it with good effects in inflammatory conditions of the conjunctiva, iris, and cornea. One case in particular I would report: a case of sclero-keratitis in which the usual treatment was used for over a year. When adrenalin chloride came to my notice I began using it, and to my satisfaction and surprise the case began to get better, the inflammation subsided, and the cornea cleared to some extent. This benefit has been permanent for about six months. So far I have only good words for solution of adrenalin chloride.

S. S. BISHOP: I employ the suprarenal extract, preserved with chloretone, altogether. The results have been satisfactory. I have seen no worse features following its use than have occurred after operations in which it was not used.

JOHN J. KYLE: I have noticed no bad effects from the use of adrenalin chloride. In one ounce of a solution I found a fungus growth, which for a time disturbed my faith in the permanency of the solutions. An amount necessary for use should be poured into a glass receptacle, and thus the deterioration of the original solution by dipping cotton into the bottle will not be encouraged. I have prescribed it in iritis, though not systematically enough to arrive at any positive conclusions. For a hæmostatic in eye, nose, and throat operations I have used the adrenalin chloride since its introduction, with uniform good results. The field of usefulness of the solution is very great, and its indication in eye, nose, and throat therapy will be daily apparent.

SOCIETIES.

NEW YORK STATE HOMŒOPATHIC MEDICAL SOCIETY: BUREAU OF O. AND O. Albany, February 11 and 12, 1902 (Concluded).

The Ear Complications of Grip was read by J. IVIMEY DOWLING. (See p. 172).

H. D. SCHENCK: It is in the influenza form of grip that the ears are affected, not the nervous and abdominal forms.

Patients with catarrhal condition of the nose or any predisposition to ear trouble should be carefully watched, and at the very first sign of earache attention should be paid to the ear, the utmost care being taken to prevent extension of the trouble beyond the stage of hyperæmia. Of course, in the aural complications of grip the intensity of the symptoms is very much more marked than in a simple catarrhal inflammation of the middle ear; extension through the Eustachian tube goes on very rapidly to destruction of tissues and implication of the mastoid, which should always be very carefully watched. Even without earache deep palpation over the antrum and apex should be carefully done. I recently saw, not a complication of grip, both mastoids in a child where early and continual application of an ice-water bag on the mastoids, together with the internal remedy, obviated an operation. Of course, as the paper states, we must carefully inspect the membrane and be prepared to perform paracentesis if there is bulging. Evacuate the pus, if there is any there, by a free incision, and cleanse it out with dilute peroxide of hydrogen followed by Politzeration of the Eustachian tube, preferably with the catheter; if that is not possible, use Valsalva's method. Get the Eustachian tube open if you possibly can, and drain the middle ear as thoroughly as possible. It is well in cleansing the nose to use, as the paper states, the Birmingham douche, with Seiler's or some similar solution. With this valuable method the nasal cavities and pharynx can be kept perfectly clear; if this is first used, or with a post-nasal syringe, you can inflate the ear by the Politzer or other method with perfect safety and the assurance that you will probably not infect the middle ear with the germs of the grip that may be in the nose or pharynx. Snuffing salt water or any solution from the hand is a very reprehensible practice; one of the valuable members of this Society would be living to-day if he had not, against the advice of all his friends, persisted in the use of this method. Suffering with the grip, he snuffed water up his nose to cleanse it and was conscious of the moment the Eustachian tube was penetrated; a violent suppurative inflammation of the middle ear ensued, and through the pain and suffering from it he committed suicide. We ought all to speak to our patients about avoiding it. Sometimes we do not know what they are doing. It is well to find out how they

are cleansing the nose. I find they will often do this without saying anything about it, supposing they are doing the right thing. By all means prohibit it.

F. Park Lewis: I wish to emphasize the necessity in grip, diphtheria, scarlet fever, and measles, of being assured that the naso-pharynx is free from adventitious growths. Adenoids complicate the condition, and they should be removed if they exist. It is sometimes a question whether it is not necessary to remove adenoids during the progress of acute inflammatory processes. In a case of measles under my observation, in which mastoid complications followed, that question arose. I combated a case of mastoid involvement in this child in a way that was so satisfactory to me I think it is worth recording. The child was developing severer symptoms—the fever running to 103° in the afternoon and becoming subnormal in the morning, a definite complaint of deafness with a profuse purulent discharge. After cleansing the ear with an antiseptic I used a twenty per cent. solution of protargol, working it back into the mastoid while the child lay with head down. In twenty-four hours the temperature was down to 102°. The next day it was 101°, and the whole condition was aborted without the necessity of operative interference. I think this is a very important matter. It is not always easy to obtain consent to operative interference in those cases, nor is it ever a simple matter to open the mastoid in a child.

Fred. D. Lewis: Where does Dr. Schenck draw the line, or find a difference between snuffing salt and water and using the Birmingham douche? I object to the Birmingham and similar douches because the epithelia of the nasal mucous membrane indicate that nature never intended that fluid substances should be drawn from before backward; the arrangements all are to carry fluids from the back forward. The only safe, thorough cleansing is by the use of a post-nasal syringe. The Eustachian cushion is not prepared to prevent the entrance of fluid that is thrown backward, but will if it is thrown from behind forward.

Dr. Schenck: There is a vast difference; in the first place, in snuffing water up the nose there is a muscular contraction of the nose and pharynx which you do not have with the Birming-

ham douche, and the fluid is thrown through the nares with very much greater force than with the Birmingham douche, where it runs through almost by the force of gravity. I have never seen any trouble arise from the use of that, especially when used as I am in the habit of using it, with fluids that are of somewhat greater specific gravity than water. It is well to be on the look-out for mastoid disease in these cases as well as all others, because mastoid trouble is very much more prevalent now than it was ten years ago. In an Infants' Hospital in Brooklyn, with which I have been connected for a long time, it was the rarest sort of thing ten years ago to have a child with mastoiditis ; for the last three or four years we have had one to two a year requiring operation.

JOHN L. MOFFAT : With what remedy does Dr. Schenck abort mastoiditis ? Under what treatment did Dr. Dowling discharge his case in a few days ? That was excellent work. I indorse very strongly what Dr. Dowling said about the necessity for thoroughly cleansing aseptically the upper vault and posterior nares before inflating the Eustachian tubes. Some patients may be able to use the post-nasal syringe, but the majority of patients cannot be trusted or induced to do it ; if I cannot get them to use that, I prescribe the half-ounce glass syringe with a blunt point, in preference to the Birmingham douche. I used to use and recommend that, but believe we can cleanse more thoroughly with the syringe, if it is carefully used.

DR. DOWLING : The only solution I used was bichloride of mercury, 1 : 5000, and the remedies at first were ferrum phos., and later hepar sulph. 3x.

DR. SCHENCK : Hepar sulph. 3x was the remedy used in this case.

DR. W. E. MILBANK exhibited three interesting cases of *lupus of the face* in different stages of cure. The most recent case was one of the nose which had existed one year; originally it was nearly the size of a snow apple, this was reduced to one-third its size by three treatments with the X-rays. In one case which was nearly cured the doctor stated that the muscles of the cheek and even the periosteum of the superior maxillar, and probably the bone itself, were involved. He covers the healthy

tissue around the lupus with heavy tea lead, then makes five to ten minute exposure to the X-rays, at anywhere from one day to one week's interval, holding the tube as near the surface as the patient will tolerate, usually between two and eighteen inches distant. In the intervals of treatment plantago ointment is applied. The operator finds that the pea-green ray cauterizes the least, while the yellow ray burns rapidly and is painful.

THE TRI-STATE MEDICAL SOCIETY. April 3, 1902.

H. A. LEIPZIGER of Burlington, Ia., *Hæmorrhage after Tonsilotomy.*

A woman, aged twenty-five, had been operated upon with the tonsilotome when thirteen years of age, but the tonsils had again enlarged so as to meet in the median line. The second removal, done on February 17, was followed by moderate oozing, and pressure with alum solution was applied. Bleeding was continuous and various styptics,including adrenalin and Monsell's solution, were applied without success. At length, when symptoms of shock were apparent, to control the nervous element in the case a hypodermic was given of morphin ¼ gr. with atropin $\frac{1}{50}$, after which the bleeding ceased and the patient went to sleep. Four hours later she awakened and the bleeding returned, but a second hypodermic produced the same happy result, and the case went on to a good recovery.

The writer's conclusions were as follows :

(1) Many cases of alarming hæmorrhage are reported, but fatal cases are extremely rare.

(2) Fatal hæmorrhages may be more frequent than shown by reports ; if this be true, fatal cases should be oftener reported to avert such disasters.

(3) The operation should not be made without presenting the possibilities of danger and allowing the patient to assume a share of the responsibility. Patients should be examined before operation at least as thoroughly as for life insurance.

(4) The operation should never be done at the surgeon's office, but at the patient's home or in a hospital.

(5) The usual compensation for the operation is absurdly small compared to the responsibility assumed.

(6) Cessation of parenchymatous bleeding is probably effected

by syncope favoring coagulation or through vaso-motor influence brought on by unconsciousness. If the latter be true, removal of nervous excitement by hypodermics of morphin may be a desirable agent for checking hæmorrhage. The use of styptics seems ineffectual; their application is often injurious from the irritation produced. The best styptics, like iron, may injure the wounded tissues and damage the teeth.

[In the above case the atropin was probably more effective than the morphin upon the bleeding.—Ed.]

Cataract in the Very Old, by Albert B. Hale, Chicago.

Six cases of cataract operated in very old patients, reported to illustrate the simplicity of the operation, and the comparative ease with which it can be performed, so that old people need not be afraid of the removal of the opaque lens.

The first case was a man ninety-one years of age, extremely feeble in mind. This resulted unsuccessfully, as the suspensory ligament ruptured the moment the knife touched it, and the lens sank into the vitreous, but the capsule was so thick that the light did not penetrate enough. Had the operator had greater experience, this accident would have been avoided, as the eye stood the operation well, and healed without reaction. The patient was too weak-minded, however, to understand the necessity of another operation. The second case was a man of eighty-one, vigorous in mind and body. The operation was a complete success surgically and visually, as he can now read and write and is quite independent. The third was a woman of eighty-one, feeble in body and not active in mind. The operation was successful, although there was some superficial reaction but no iritis. She never received a thorough correction for the old aphakia and astigmia, while the retina was very sluggish in re-acquiring perception of objects, but [a [few months after the operation she could get about the house independently and even read a little, so it is safe to call this successful. The fourth case was a woman of eighty, mother of twelve children. The operation was so successful that she could thread a needle and had vision of $\frac{30}{30}$. The fifth case was a negress, the mother of thirteen children, reported to be one hundred and twenty years old, with authentic evidence of age over one hundred. She was illiterate and no accurate measurement could be taken, but she

was able to go about the house, and even without a lens could see the trees and birds out of the window, and was perfectly happy. The sixth case was a woman of eighty, with an overripe nucleus, a thick, creamy cortex. This was relieved successfully, with no reaction in healing, but the capsule was so thick that visual improvement could not be noted.

The proportion of successful cases may seem small; but when it is considered that in the first and last cases the operator was refused a second operation, and by his own confession was not prepared to meet the complication of the very thick capsule, it may be assumed that the operations might have been successful in these with more experience. His conclusions are as follows:

1. Tissues in the very old are apt to be friable and the cataract unripe.

2. Patients stand the operation surprisingly well, and with little reaction.

3. Every case of cataract in the very old, if the retina and nerve seem to functionate well, should be given the chance of an operation.

4. It should be carefully remembered that in the very old the suspensory ligament is apt to rupture and the lens to be overripe and the capsule thick and tough; therefore, when operating on such a patient, everything necessary to meet these emergencies should be in readiness.

5. Repair proceeds slowly, but as securely as at an earlier age.

The writer referred to English, German, and American reports of similar operations, in support of his conclusions.

Thrombosis of the Sigmoid Sinus in Connection with Ear Disease, Norval H. Pierce, Chicago.

In all inflammations of the middle ear accompanied by the formation of pus, the great venous channels lying in such close proximity are liable to become invaded. It is this consideration, among others of like moment, that should lead us to regard every infection of the tympanic cavity as an occurrence of more or less gravity. By far the most frequent means of transmission of the infectious material from the middle ear to the venous channels is by way of the blood vessels and foramina, and the most frequently attacked channel is the sigmoid sinus, or that portion of the lateral sinus that joins the jugular vein.

In the operation, when the process of necrosis is complete, after getting through the cortex of the mastoid we find one large cavity running from the middle ear to the walls of the sigmoid sinus, and the indications for treatment are plain. It is altogether different, and very much more difficult, when there is no direct communication by extension between the suppurative process of the middle ear and a so-called isolated thrombosis of the sigmoid sinus or the bulb of the jugular vein. Here we must be guided entirely by the symptoms of the patient, and of these symptoms the most important are the character of the temperature curve and the presence of chills.

It requires some courage on the part of the surgeon to destroy bone which is apparently healthy over the sigmoid sinus, to ascertain its condition; yet the writer's experience has taught him that in all cases, especially those following chronic suppurative inflammation of the middle ear, where there are symptoms pointing to sepsis—chills and fevers, the fever characterized by wide fluctuations—there should be no hesitation in ascertaining by touch and sight, and, if necessary, by incision or aspiration, the condition of the lumen of the sigmoid sinus. There can be little doubt, in view of the accurate observations in the past by praiseworthy observers, that there may be a sepsis indistinguishable from that arising from thrombosis of the sigmoid sinus, caused by the absorption of thrombi or septic material from the minute veins of the middle ear or mastoid cells; but these cases are rare, and while there may be slight danger in exposing a non-infected sigmoid sinus, the chances are so great of its being infected, when we have the classical symptoms of chill and septic fever, that it is advisable never to hesitate in exploring this sinus.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY. Seventh Annual meeting, New York, 1901 (Continued).

Simple Operations on the Inferior Turbinate in Place of Cauterization.

JOHN F. WOODWARD of Norfolk, Va., uses the cautery in the first stages of hypertrophy only. The complete removal of the inferior turbinate is seldom necessary. Our object should

be to secure the greatest amount of air space with the least destruction of tissue. He uses scissors having short cutting blades, one being serrated. He also has a snare which can be used with one hand.

Chronic Nasopharyngeal Bursitis.

C. Dunbar Roy of Atlanta. Adenoids are present in all children ; they are not the result of climate, but are greatly influenced in their growth by climate. Anatomists are not agreed as to the existence of the pharyngeal tonsil. There are certain cases of nasopharyngeal catarrh which are dependent upon a pathological state of this bursa. He believes this bursa is only rarely present. The treatment that has succeeded best in his hands is nitrate of silver, sixty grains to the ounce, applied directly to the surface affected, and then spraying with hot melted vaselin and orthoform.

C. G. Coakley of New York has seen cases similar to those reported in the paper, and he has always regarded them as the result of a peculiar arrangement of the lymphoid tissue in the nasopharynx. The formation of deep recesses is undoubted, and some of them extend down even to the periosteum. In the cases under discussion he thought there was a deep recess passing under a band of connective tissue. He has curetted such a case with temporary benefit only. The relapse was found to be caused by a retention of secretion, and on the thorough removal of the secretion from the blind pouch, the parts healed permanently. The curette passes over the pouch without removing this material.

Diseases of Stenson's Duct, and the Treatment.

Carl E. Munger of Waterbury, Conn. Simple chemical tests would show whether or not the fluid is really saliva. All injuries to the duct should be attended to at once to prevent fistula. Stricture can be overcome with difficulty by dilatation with forceps if near the buccal orifice, but if the obstruction is near the gland an operation will be demanded. Where the parotid gland is the seat of an abscess or broken-down tissue, incision is imperative, but it must be remembered that, as this results in a parotid fistula, the operation is only the beginning of treatment.

Tympanic Vertigo Due to Obstruction of the Eustachian Tube.

William P. Brandegee of New York. Vertigo can be divided into four varieties : 1, incident to the diseases of heart ; 2, complicating disease of the stomach and intestinal tract ; 3, associated with disease of the eye ; and 4, dependent upon disease of the ear. Vertigo in connection with ear disease is almost always associated with tinnitus. When there is only moderate deafness, vertigo is not usually complained of. The lower tone limit is nearly always raised. Aural vertigo is usually referred to the side on which the lesion exists. The first effort should be to strike at the root of the disorder by restoring the lumen of the Eustachian tube by electrolysis. The smallest bougie with a tip one mm. in diameter was preferred for the first treatment, and a current of from twenty-five to forty volts and from two to five milliamperes should be used.

Toxic Rhinitis.

Charles P. Grayson of Philadelphia believes that nine-tenths of the cases of rhinitis are due to a toxæmia ; rarely, if ever, could it be said that a person whose metabolic processes are normal can "take cold." The greatest sufferers from periodical rhinitis are those who are indulgent at the table or who will not take sufficient exercise. The local treatment of such attacks must be but palliative, and is of small moment. For these reasons he strongly condemned the now very prevalent custom of prescribing "rhinitis" tablets composed of opium, belladonna, and aconite. It is far better to prescribe horseback or other exercises, followed by a cool bath and a rub down, than the usual coddling treatment for colds.

Immunization in Hay Fever, Two Years' Experience.

H. Holbrook Curtis of New York began his experiments in this field by administering hypodermically a sterilized infusion of roses. After two weeks of this treatment the lady had been able to stand the effect of the odor of roses. He then treated this neurotic individual by similar preparations of violets and lilies, and with equally good result. He next noted that other flowers than these could be included in a bouquet without causing the distress formerly experienced, and then determined to

apply this therapeutic principle to hay fever. As a result, Fraser & Co. placed on the market in August, 1900, a preparation of the fluid extract of ragweed with aromatics, which was sold under the name of "Liquor Ambrosio." He concludes that in those cases of hay fever due entirely to ragweed, immunization could be secured in about 60 per cent., but in cases of mixed infection with a preponderance of asthmatic symptoms, a nasal spray of suprarenal extract or of adrenalin should be employed.

H. L. WAGNER, having heard of Dr. Curtis' experiments, had undertaken the analysis of various extracts of flowers with the object of ascertaining what effect they might have on the serum of the blood. The so-called glycosides of the vegetable kingdom form certain chemical combinations with the albuminoid products of the blood; he did not refer to serum albumin or serum globulin. Some patients develop symptoms of hay fever after riding behind a horse. The peculiar smell of the horse is due to hippuric acid, and he decided to inject 3 to 3½ per cent. solutions of pure hippuric acid; 1 or 2 cc. every third or fourth day. One case after eight or ten weeks' treatment was cured—although it might have been by suggestion.

E. L. VANSANT of Philadelphia: Hay fever is certainly more or less of a neurosis, and he is inclined to think that the idea of being made immune to a disease from which one has been suffering from year to year would have a profound effect on the nervous system, and this would account for some of the beneficial results reported. Numerous examinations of the blood in cases of hay fever might bring out valuable information.

PIERCE BROWN: Apparently Dr. Curtis had taken no cognizance of the effect of hay. Dr. Brown has known men to develop attacks of hay fever after having been engaged in throwing pure timothy hay.

L. F. PAGE had several patients who had been unpleasantly affected by driving behind a horse, and he concluded that this was due to the hair of the animal having become saturated with the pollen of various plants, rather than from any peculiar emanation from the animal. For several years he secured good results in the treatment of hay fever by restoring proper drainage and

as nearly as possible normal conditions of the mucous membrane, together with proper attention to the eliminating action of the skin and bowels. Various abnormalities of the nose, by causing pressure irritation in persons predisposed to hay fever, are often responsible for the occurrence of this disorder.

N. L. Wilson gave the remedy another trial. He had used it in eight cases last year, and the only results noted had been the production of nausea and an increase of the discomfort of the patient. He had been disposed to discard this treatment, not only because of these clinical results, but because one of his patients always had an attack after driving behind a horse, and another patient developed hay fever after riding a bicycle on a dusty road.

C. F. McGahan's summer practice is in the home of hay fever. He knew of a gentleman who had a stable about as clean as one's kitchen, and whose horses were beautifully groomed, and yet he also had hay fever after driving behind a horse in the hay-fever season. It used to be said that the ragweed does not grow in the mountains, and hence persons are exempt from hay-fever there ; this is not true, the ragweed has been found in those regions.

J. A. Stucky of Lexington, Ky.: In three cases the patients thought they were benefited by Dr. Curtis' preparation. Eight felt no appreciable result, while he had obtained considerable relief from one part suprarenal extract and chloretone, in seven parts of Dobell's or Seiler's solution.

T. J. Harris gave one patient no treatment directed to the nose, but had endeavored to correct the high acidity of her urine and to improve the condition of her stomach ; at one time she had gone the whole year without any rose cold, and the latter was now five days overdue.

E. E. Holt said that a classmate of his had been unable to ride behind a horse at any time in the year, although he had tried various methods of grooming and cleaning the horse.

Dr. Curtis, in closing, spoke of a man, cited in a previous communication, who had been unable to live in London since twelve years of age. He could not pass a horse in the street

without having a dreadful coryza, but could ride behind a horse that had been vaselined, without developing symptoms for an hour. Persons who are sensitive to the emanations from the horse develop the symptoms when riding in a sleigh, thus eliminating the question of dust. Some persons are sensitive to emanations from elephants, cats, and mice. A rose cold occurs even when there are no roses about, and is the result of an erectile tumefaction ; in the later stages a true œdema supervenes. He believes the most important thing in the treatment of hay fever is the elimination of uric acid, and that this is proved by the effect of low diet. He knew several opera singers whose vocal cords were so sensitive that, if exposed to such emanations in a room, they would be unable to sing. The fluid extract was the more efficient preparation.

F. L. Jack of Boston read a paper on *Management of Acute Otitis Media.*

ABSTRACTS FROM CURRENT LITERATURE.

Static Electricity Transmitted to a Distance and Several X-Ray Tubes Operated from One Machine.—W. B. Clarke of Indianapolis.—*The Amer. Physician*, April.

Last autumn (1901) he ran an insulated wire from each discharge rod of his 16-plate Betz machine to his patient's house one hundred feet away, where an X-ray tube was operated at the bedside at the same time that another was being operated at the machine. "Several currents may be made to do work, and several tubes used." He suggests one machine may thus treat several patients simultaneously in different rooms of a sanitarium or in stalls in a large office ; and that several physicians in one building might club together for such an outfit.

J. L. M.

Protection of the Cornea in Some Sightless Stumps.—H. Gifford, Omaha.—*Arch. of Ophth.*, March.

The writer believes a stump, even supporting an artificial eye, entirely harmless if, after once becoming quiet, it can be kept from being infected.

For six years he has been in the habit of covering the cornea with a conjunctival flap, a Thiersch flap, or an epithelial flap, if a quiet stump has enough cornea left to be irritated by the glass eye, or if bits of iris are exposed in a scar ; or—a third class—an eye subject to frequent attacks of corneal irritation because of lowered vitality or degeneration of the corneal epithelium.

In the majority of cases the conjunctiva is excised around the lower half of the cornea about $\frac{3}{16}$ of an inch at the sides and $\frac{1}{8}$ inch below. Above this it is dissected from the globe to the upper fornix, where a cross-cut is made allowing the membrane to be slid down over the cornea without too much tension on it. Three sutures below are generally sufficient, but they must be put well into the episcleral tissue, nearly as deeply as when advancing a muscle.

If the conjunctiva is atrophic, or the above operation would not leave space enough for an artificial eye, Dr. Gifford uses a thin epithelial lip flap, shaved off with a razor, spread carefully over the scraped cornea, and tucked under the conjunctiva, which has been dissected up all around for $\frac{1}{8}$ of an inch. In scraping the cornea be careful at the limbus. If a nearly-full sized cornea is to be covered he prefers the Thiersch flap, being careful to teach the patient to wipe off its dead epidermis once or twice a week. He bandages both eyes for twenty-four hours. These operations are readily accepted by patients who will not consent to evisceration or enucleation. J. L. M.

Corneal Complications in Conjunctivitis Due to the Koch-Weeks Bacillus.—Edward A. Shumway.—*Phil. Med. Journ.*, April 26.

Three cases are reported of acute infectious conjunctivitis ; marked thickening of the reddened conjunctiva, photophobia, profuse muco-purulent discharge and phlyctenules at the corneal margin ; in one case the whole cornea became opaque with parenchymatous infiltration, but no superficial ulceration, the opacity beginning and ending as separate points of infiltration. The discharge showed the Koch-Weeks bacillus in large numbers. Dr. Shumway has records also of three isolated adult cases "in the past six months" with equally severe symptoms, but no phlyctenules, the Koch-Weeks bacillus being present.

He refers to thirteen cases showing the Koch-Weeks bacillus in an epidemic of three hundred, many having phlyctenules. The same organism can produce epidemics of varying severity. This bacillus is probably overlooked because of its minute size.

The writer concludes that: 1. Koch-Weeks bacillus conjunctivitis is apparently becoming more common in Philadelphia than has been hitherto observed. 2. It may present itself in a particularly severe form and be complicated by phlyctenules and even by corneal ulceration. 3. These cases are especially contagious, and extra precautions should be taken to prevent their spreading, particularly among the school-children. 4. As a rule, they are controlled by the use of mild astringent lotions, and applications of two per cent. solutions of nitrate of silver. He has not tried protargol, but equally good results have been obtained by other observers, when the solutions used have been of sufficient strength, viz., ten to twenty per cent.

REFERENCES.

Weeks. Archives of Ophthalmology, 1886, vol. XV. p. 441.
Morax. Recherches bacteriologiques sur l'etiologie des conjunctivites aigues. Paris, 1894.
Kartulis. Centralbl. f. Bakt. u. Parasitenkunde, 1887, No. 10, vol. i. p. 289.
Mueller and Weichselbaum. Archiv. f. Ophth. XLVII. I. p. 108.
Trans. Am. Med. Assn., Section Ophthalmology, 1889, p. 375.

J. L. M.

Tumor of Optic Nerve Sheath Removed by Kroenlein's Method, with Preservation of the Eye and of Good Vision.—F. Antill Pockley of Sydney.—*Arch. of Ophth.*, March.

An extraordinarily rare occurrence. A boy, thirteen years old, for six or eight months had noticed the left eye gradually becoming more prominent, with no pain nor inflammation. There was no history of injury or severe illness.

Examination. O. S. $\frac{3}{8}$ inch directly forward; no impairment of movement, no diplopia; pupil and tension normal; V=$\frac{5}{12}$; moderate optic neuritis; indistinct feeling of resistance on pressure in lower outer angle of orbit.

The bone was sawed with the dental engine, the external rectus not divided. The growth was stripped from the outer side of the optic nerve, for half or three-quarters of an inch, without difficulty; examination showed it to be a spherical, completely encapsuled, round-celled sarcoma, of an aberrant form, about $\frac{3}{4}$ inch in diameter, on section showing hæmorrhages. The operation presented no difficulties and required but thirty-five minutes. The eye immediately went back to its place, the wound united by first intention. and the stitches were removed on the fourth day; there was some slight œdema of the lids for a few days. Seventeen days later in extreme outward movements there was diplopia, but only to colored glass and flame; the neuritis had subsided, the vision was $\frac{5}{12}$.

Of 388,000 patients in fifteen years at Moorfields Hospital only two tumors of the optic nerve or its sheath have been removed, and only five cases are recorded in the whole of the *Transactions of the Ophthalmological Society of the United Kingdom* (twenty years); in all of these the eye had to be excised. Dr. Pockley quotes the *Ophthalmic Review* of January, 1901. This operation had at that time been performed ten times for tumors of the optic nerve and twice for tumors of its sheath. J. L. M.

Primary Erysipelas of Throat Migrating to Face, via Left Eustachian Tube and Auditory Canal.—Edward L. Frost, Buffalo.—*Amer. Med.*, April 26.

A widow, aged fifty-eight; family history negative; always well, except attacks of facial neuralgia and small areas of eczema. February 2, 1902, she had not been feeling well for a day or two, and is now suffering with pain throughout the body, especially severe in the head and back. Her throat is very sore, dark-red, anterior pillars, pharynx, and tonsils swollen and greatly congested; there is no exudate visible.

This condition failed to improve under the usual treatment. The uvula soon became œdematous. The pain in the throat was out of all proportion to the amount of swelling. On the second day the right submaxillary glands became swollen and extremely sensitive to touch, the swelling subsiding during the next two days, when the left lower submaxillaries became involved; followed two days later by an involvement of the glands be-

tween the angle of the jaw and left ear, Nervous symptoms were very troublesome, insomnia, restlessness, and at times delirium. Swallowing liquids caused attacks of choking and strangling, this being probably due to the swelling of the epiglottis. As the mouth could only be slightly opened, satisfactory laryngoscopic examination was prevented. Some difficulty in breathing followed these choking attacks several times. There was a moderate degree of gingivitis, tongue dry, breath somewhat foul. Secretion in the throat consisted of a tenacious white mucus, necessitating a swab for its removal. Albuminuria appeared on the fifth day, and was present in considerable quantity by the eighth day. On the morning of the ninth day her temperature was normal; lymphadenitis was apparently subsiding when she commenced to complain of pain in the left ear, continuing until the following day, when perforation and the escape of a purulent fluid occurred. This was quickly followed by a cutaneous erysipelas which spread rapidly over the ear, cheek, and forehead, and continued to spread until the fourteenth day of the disease, when it covered the anterior portion of the scalp, and the whole face including the chin, also the neck completely encircling it; the right middle ear also became involved, but subsequent to the involvement of the face. With the exception of a slight recrudescence on the sixteenth day, due to a small focus of reinfection on the left side of the face, the patient made an uninterrupted recovery.

She had a relatively slow pulse throughout the disease, never higher than 110, probably due to individual peculiarity (being a large woman), and to stimulation, brandy and strychnia being used freely. J. L. M.

Menthol with Ether Anæsthesia.—W. A. Briggs of Sacramento, in *Amer. Med.*, April 26.

Recommends sprinkling a dram of oil of peppermint or of saturated alcoholic solution of menthol in the cone; after the patient has inhaled this freely for three minutes, saturate the cone with ether and bring it down slowly over the face; after a few full inhalations crowd the cone down well and push the etherization as rapidly as is consistent with safety; continue the use of the mentholized cone through the whole period of

anæsthesia, replenishing the ether as usual. After the operation let the patient inhale oil of peppermint or menthol from a handkerchief freely and often, until the tendency to nausea subsides.

The advantages of this over the usual method are the following: 1. Entire freedom from cough and sense of impending suffocation, and comparative freedom from nausea, vomiting, and retching. 2. Ease and rapidity with which anæsthesia may be induced and the ease and smoothness with which it may be maintained. 3. The entire absence, or marked abbreviation, of the period of excitement. 4. Economy both of ether and of time. 5. Profounder first anæsthesia, under which minor operations may be done with more certainty. 6. Probably less post-operative nausea and vomiting. J. L. M.

A Variation in the Technique of Septum Operations. —Stephen H. Lutz.—*The Lar.*, August.

"There is no one operation that can be depended upon to correct every deviated septum." The author advocates first removal of any spurs or ridges, preferably a couple of weeks before operation; then, in many cases, fracturing the septum by Roe's or Asch's straightening forceps, not incising the membrane at all if possible. Only seldom is it necessary to use cutting instruments. The avoidance of cutting the tissues is the variation referred to and emphasized. (Discussion of this paper will be found in the report of the Amer. Lar., Rhin. and Otol. Soc. in our next issue). A. W. P.

BIBLIOGRAPHY.

The reader who notes any omissions or errors will confer a favor by sending corrections to Dr. W. U. Reynolds, 320 Manhattan Ave., New York.

5 Am. J. of M. Sc. (Phila.).
6 Am. J. of Ophthalm. (St. Louis).
7 Am. J. of Physiol. (Boston).
9 Am. Medicine (Phila).
12 Anat. Anz. Centralb. (Jena).
15 Ann. de la Policlin. de Paris.
21 Ann. des Mal. de l'O., du Lar., du Nez et du Phar. (Paris).
22 Ann. d'Oculistique (Paris).
23 Ann. d'Ophtalmol. (Paris).
25 Ann. di Med. Nav. (Roma).
26 Ann. di Ottalmologia (Pavia).
28 Ann. of Ophthalmol. (St. Louis).
29 Ann. of Ot., R. and L. (St. Louis).
33 Arb. aus Anat. Inst (Wiesbaden).
34 Arb. a. d. Chir. Klin. d. Königl. Univ. (Berlin).
36 Arch. of Ophthalm. (N. Y.).
37 Arch. of Otol. (N. Y.).
38 Arch. d'Ophtalmol. (Paris).
39 Arch. de M. et de Chir. Sp. (Paris)
40 Arch. de M. Experim. et d'Anat. Pathol. (Paris).
42 Arch. Internat. de Lar., de l'Ot., et de Rhinol. (Paris).
46 Arch. f. Anat. u. Phys. (Leipzig).
47 Arch. f. Augenh. (Wiesbaden).
48 Arch. f. Ohrenh. (Leipzig).
49 Arch. f. Lar. u. Rhin. (Berlin).
50 v. Graefe's Arch. f. Oph. (Leipzig)
52 Arch. f. Mic. Anat. u. Ent. (Bonn).
53 Arch. f. d. Gesam. Phys. des Mensch. u. d. Thiere. (Bonn).
54 Arch. f. Pathol. Anat. u. Phys.
56 Arch. Ital. di O., R. e L. (Torino).
57 Arch. Ital. di Lar. (Napoli).
58 Arch. di Ottalmol. (Palermo).
65 Atti delle Accad. delle Sc. M. e Nat. (Ferrara).
75 Beitrage z. Augenh. (Hamburg).
80 Brain.
82 British Med. Journ.
85 Buffalo M. Jour.
86 Bull. de Lar., Ot., et Rh. (Paris).
88 Bull. of Johns Hopkins Hosp. (Balt.).
98 Centralbl. f. Pr. Augenh. (Leipzig).
105 Clinical Journal (London).
120 Edinburgh Med. Journal.
125 Gaceta Medica (Mexico).
126 Gac. Med. Catalana (Barcelona).
128 Gaz. des Hôp. (Paris).
131 Giorn. Internaz. delle Sc. M. (Napoli).
132 Giorn. delle Assoc. Napol. di Med. e Nat.
133 Giorn. delle R. Accad. di M. id Torino.
139 Guy's Hosp. Gaz. (London).
141 Hahnemannian Mo. (Phila.).
144 Hom. E., E., and T. Jour. (N.Y.)
155 Indian Lancet.
156 Indian Med. Gaz. (Calcutta).
157 Indian Med Rec.
172 J. de Phys. et de Pathol. Gen. (Paris).
173 J. of Advanced Therap. (N. Y.).
175 J. of Am. Med. Assn. (Chicago).
176 J. of Anat. and Phys. (London).
178 J. of Brit. Hom. Soc. (London).
182 J. of E., E., and T. Dis. (Balt.).
183 J. of L., R., and O. (London).
184 J. of Ment. and Nerv. Dis (N.Y.)
185 J. of O., O., and L. (N. Y.).
188 Am. J. of Physiol.
193 Klin. Monatsbl. für Augenh. (Stuttgart).
195 Klin. Vortr. und Geb. d. Otol. u. Phar. Rhin. (Jena).
200 La Clin. Ophtal. (Paris).
210 La Parole (Paris).
215 Laryngoscope (St. Louis).
220 Le Progrès Méd.
225 London Lancet.
229 Lo Sperimentale (Fierenze).
235 Med. and Surg. Jour. (Boston).
240 Medical News (N. Y.).
242 Med. Press and Circ. (London).
245 Medical Record (N. Y.).
250 Medical Times (London).
260 Mind (London).
265 Monatsch. f. Ohrenh. (Berlin).
275 N. Y. Eye and Ear Infirm. Rep.
280 N. Y. Med. Jour.
283 N. Y. State Jour. of Med. (N. Y.)
285 No. Am. Jour. of Hom. (N. Y.)
290 Nouv. Icon. de la Salpet. (Paris).
299 Ophthalmic Record (Chicago).
300 Ophthalmic Review (London).
310 Phila. Med. Jour.
313 Post-Graduate, The (N. Y.).
315 Proc. of the Phila. Pathol. Soc.
317 Proc. of the Roy. Soc. (London).
330 Receuil d'Ophtalm. (Paris).
333 Revista Espec. Med. (Madrid).
355 Schmidt's Jahrb. d. in- u. ausland ges. Med.
356 Sei-I-Kwan Med. Jour. (Tokio).
400 Univ. of Pa. Med. Bul. (Phila.).
450 Zeitschr. f. Augenh. (Berlin).
455 Zeitschr. f. Ohrenh. (Wiesbaden).
460 Zeitschr. f. Physiol. u. Phys. d. Sinnesorg. (Leipzig).

OPHTHALMOLOGY.

Blindness from Deformity of the Occiput. Chas. A. Oliver, 5, Jan.

Ophthalmia Neonatorum Caused by the Diplobacillus of Morax and Axenfeld. E. Andrade, 5, Feb.

Post-operative Accidents Following Successful Cataract Operations. S. C. Ayres (Cincinnati), 6, Jan.

A Case of Traumautic Retroflexion of the Iris, Anatomically Examined. Adolf Alt, Idem.

Motility of Pupil in Severe Optic Neuritis. J. Hirschberg, (Berlin), 6, Jan.

Notes Concerning History of Invention of the Ophthalmoscope. Richd. Greef (Berlin), Idem.

Visual Tests for Children. Arthur E. Ewing (St. Louis), 6. Feb.

Technique of Muscle Advancement. Edmund Landolt, Idem.

No "Sore Eyes" in Manila. Theod. Republica (Westfield, N. J.) 9, Jan. 4.

Albinism in the Negro. Alfred A. Loeb (Phila.), 9, Jan. 25.

Tuberculosis of the Eye. Allen T. Haight (Chicago), 9, Feb. 8.

"Residual Sensations" as a Test for Diplopia or Heterophoria. Wm. R. Broughton (N. Y.), 28, Jan.

Opacities of the Vitreous, and Amenorrhœa. R. Bylsma (Middelburg, Netherland), Idem.

Trachomatous Spots in the Malay. L. Steiner (Java) 28, Jan.

Amblyopia from Carbon Bisulphide Poisoning. F. C. Heath (Indianapolis), Idem.

An Unusual Form of Superficial Punctate Keratitis. Wm. Campbell Posey (Phila.), Idem.

Case of Embolism (Thrombosis?) of a Branch of the Central Retinal Artery Treated with Forcible Massage. Recovery. A. Barkan (San Francisco), 36, Jan.

Further Clinical Experiences with Haab's Giant Magnet, with Some Experimental Statements Regarding Hirschberg's New Large Hand-Magnet. A. Barkan (San Francisco), Idem.

Dermoid Cyst of Iris not Preceded by Trauma. Albert C. Snell (Rochester), 28, Jan.

Ciliary Processes in the Pupillary Area. R. Schweigger (Berlin), 36, Jan.

Ciliary Processes in the Pupillary Region. J. Herbert Fisher, Idem.

On Leucæmic Pseudo-Tumors in the Retina. Hugo Feilchenfeld (Lübeck), 36, Jan.

The Occurrence of Optic Neuritis in Lesions of the Spinal Cord. James Taylor, James Collier, 80, Part iv., 1901.

A Case of Complete Absence of the Visual System in an Adult. Wm. G. Spiller, Idem.

Two Cases of Astereognosis. Theo. Diller, Idem.

On Blinding of the Retina from Exposure of the Eyes when Watching the Eclipse of the Sun. Simeon Snell, 82, Jan. 18, 157, Feb. 12.

Nine Cases in which Haab's Magnet was Used for the Extraction of Foreign Bodies from the Eye. W. T. H. Spicer and A. F. Maccallan, Idem.

The Relation of Glaucoma to Thrombosis of Retinal Veins, etc. E. Harries Jones, 82, Jan. 18.

Reflections on Ophthalmic Work in the Army. John Grimshaw, Idem.

The Value of Retinoscopy over Ophthalmometry. G. De-Wayne Hallett (New York), 144, Feb.

Exophthalmic Goiter. Casey A. Wood, 85, Jan.

Metamorphopsia Varians. Wm. H. Dudley (Easton, Pa.), 175, Jan. 4.

Injuries of the Choroid, with Report of a Case. Ellet Orrin Sisson (Keokuk, Ia.), 175, Jan. 11.

What Amount of Visual Defect should Disqualify in Railroad Service? F. K. Allport (Chicago), 175, Feb. 8.

The Identification of Criminals through the Fundus of the Eye. M. F. Weymann (St. Joseph, Mo.), 175, Feb. 22.

The History of the Invention and of the Development of the Ophthalmoscope. Harry Friedenwald (Baltimore, Md.), 175, Mch. 1.

Hermann von Helmholtz—The Inventor of the Ophthalmoscope. Casey A. Wood (Chicago), Idem.

A Few Personal Recollections of Helmholtz. Hermann Knapp, 175, Mch. 1.

The Contributions of Helmholtz to Physiology and Psychology. Winfield Hall (Chicago), Idem.

The Debt of Otology to Helmholtz. B. Alex. Randall (Phila.), Idem.

Contribution of Helmholtz to Physical Science, Especially with Reference to Physiological Optics, Including the Dynamics of Eyeball Movements and of Accommodation. Arthur W. Goodspeed (Phila.)., 175, Mch. 1.

Stenopaic Method of Determining the Interaxial Distance. Warren Uel Reynolds (N. Y.), 185, Jan.

Blindness from Babies' Sore Eyes. Thomas Milton Stewart (Cincinnati), Idem.

Mydriatics, Myotics, and Local Anæsthetics (Tables from Swanzey), Idem.

Astigmia with the Rule after Cataract Extraction. F. M. Chisolm, 182, Jan.

Beef-worm in the Orbital Cavity. Thos. W. F. Gann, 225, Jan. 4.

Ocular Pain—a Post-Graduate Lecture. Percy Dunn, 225, Jan. 18.

A Further Note concerning the Frontal or Supra-orbital Reflex. Walker Overend, 225, Jan. 25.
The Class of Cases of Simple Chronic Glaucoma in which Operation is not Advisable. Charles Stedman Bull (N. Y.), 240, Jan. 18.
Spontaneous Rupture of Eyeball. W. W. Gilfillan (N. Y.), 240, Jan. 25.
Retinal Lesions of Chronic Interstitial Nephritis. Edwd. Jackson (Denver), 240, Feb. 15.
Alcoholic Amaurosis. Frank Van Fleet (N. Y.), 245, Jan. 18.
Implantation of a Gold Ball for the Better Support of an Artificial Eye. L. W. Fox (Phila.), 280, Jan. 18.
Internal Eye Disease vs. Faulty Metabolism. Thos. M. Stewart, 285, Feb.
The Eye and the General Practitioner. John L. Moffat, Idem.
A New Use of Prisms in Heterophoria. F. Park Lewis (Buffalo), 299, Feb.
Operative Aphakia in Malignant Myopia. Chas. H. Beard (Chicago), 299, Feb.
A Secure Advancement Operation Performed with the Aid of a New Tendon Tucker. Frank C. Todd (Minneapolis), Idem.
Relapsing Traumatic Bullous Keratitis. G. E. De Schweinitz, Idem.
Ocular Paralysis. M. F. Weymann, 299, Feb.
The "Crossed Cylinder" in the Determination of the Refraction. E. C. Ellett (Memphis), Idem.
An Unusual Result in a Case of Iritis. E. G. Gardiner (Chicago), Idem.
The Requirements of a Test for Color-Blindness. F. W. Edridge-Green, 300, Feb.
The Various Causes of Obstruction in the Central Artery of the Retina. A. Hugh Thompson, 300, Mch.
Pince-nez in Ophthalmic Practice. Robt. D. Joyce, 242, Feb. 12.
An Instructive Case of Inherited Syphilis. Sydney Stephenson, 242, Mch. 12.
The Value of Perimetry. R. J. Coulter, 300, Jan.
On the Desirability of Further Data Concerning the Prevention of Ophthalmia Neonatorum. Lucien Howe, 310, Jan. 18.
Result of X-Ray Diagnosis and of Operation in Injuries from Foreign Bodies in the Eye. Wm. M. Sweet (Phila.), 310, Feb. 1.
A New Localizer of Foreign Bodies in the Eye by the Roentgen Rays. L. W. Fox, Idem.
Some Observations on the Haab Magnet. Frank Van Fleet, 313, Jany.
Wood Alcohol as a Remedy in Amblyopia. H. T. Guss, in Med. World, Hom. Recorder, Feb. 15.

Indications for Iridectomy in Glaucoma and the Method of Operating. Kipp, 6, March.
Heterophoria and Resulting Reflex Neuroses. Culbertson. Idem.
A Separate Gumma of Caruncle and Ocular Conjunctiva. Case and Bibliography. Suker, Idem.
Retinal Hæmorrhages. Blair, 144, March, April.
Prescription of Glasses in the Various Errors of Refraction. Suffa, Idem.
Plastic Surgery of the Eyelids. Wescott, 175, Mch. 22.
The X-Ray in Determining the Limits of the Frontal Sinus. Philip, Idem.
Ocular Lesions Associated with Constitutional Diathesis. Jones, Idem.
Cases Treated with Roentgen Rays, 175, April 12.
Review of Finsen's Phototherapy. Clemensen, 175, April 12.
Intracranial Disease Involving the Chiasm. Loveland Marlow, 184, April.
Chancroid of Eyelid. Lanckton, 280, Mch. 15.
Trifacial Neuralgia and Its Treatment, 280, Mch. 15.
Some Dangers of Iritis and Glaucoma. J. I. Dowling, 185, Mch.
Section of the Cornea for Cataract Operation. Hocquard, Tr. by E. R. Fiske, Idem.
Cosmetic Considerations not the Only Ones in Cases of Strabismus. Derby, 245, Mch. 29.
Hippus. Newton, 280, Mch. 29.
Diabetes and the Eye. Allen, 280, Mch. 29.
A Simple Test for Equilibrity of Eye Muscles in Binocular Vision. Riley, 245, Mch. 22.
A Peculiarity of Vision, with Cases. Riley, 240, April 12.
The Sideroscope. Pooley, 280, Mch. 8.
Comment l'on doit Extraire la Cataracte un siècle et demi après Daviel. L. de Wecker, 22, cxxvi. 5.
La Plaie de la Cornée dans l'opération de la Cataracte. M. E. Hocquard, 22, cxxvi, 5.
Microphakie. M. Cordiale (de Novara, Italie), 22, cxxvi. 5.
L'etiologie du Trachome en Egypte. Morax et Lakah, 22, cxxvi. 5.
Pathogénie du Glaucome—Recherches et Expérimentales. M. Uribe-Troncoso (de Mexico), 22, cxxvi. 6.
De l'Unité de Mesure de l'Acuité Visuelle. M. Sulzer, 22, cxxvi. 6.
Traitement de l'héméralopie essentielle par l'ingestion du foie bouilli ou cuit. Trantas, 38, xxi. No. 11.
Tumeurs des glandes lacrymales. C. Fromaget, Idem.
Paralysie du Nerf Oculo-Moteur externe comme seul symptome d'une déchirune traumatique de l'artère carotide interne dans le sinus caverneux. I. P. Nuel, 38, xxi. No. 12.

Restauration des paupières par la greffe cutanée. M. Adjemian. Idem.

Remarques sur l'opération de la cataracte, réponse à M. de Wecker. F. Terrien, Idem.

Des Traumatismes Oculaires et de leur Traitement. A. Leprince (de Bourges), 39, 2e année, No. 5.

Anesthésie. Suarez de Mendoza (Paris), Idem.

La Retine d'un Anencéphale. N. Vaschide et Cl. Vurpas, 40, 13e An., No. 6.

Des troubles et des déformations pupillaires dans les diverses espèces de vésanies. E. Marandon de Montyel, 128, No. 134.

Sur quelques symptomes intéressants, déterminés par des lésions circonscrites de l'encéphale consécutives à un traumatisme par balle. J. Toubert, 128, No. 143.

Les affections sympathiques de l'œil. F. Terrien, 128, 144 et 147.

La signe pupillaire d'Argyll-Robertson; sa valeur séméiologique; ses relations avec la syphilis. R. Cestan, et Dupuy-Dutemps, 128, No. 149.

De la strabotomie para-scléroticale. Delamare (Paul-Marcel), 330, 23e An. No., 11.

Compression et ligature de la carotide primitive dans le traitement de l'exophtalmos pulsatile (suite et fin), Idem.

Sur le diagnostic des affections tuberculeuses de l'appareil visuel. V. Morax et J. Chaillous, 22, Aout.

Auto-observation de glaucome. Javal, 22, Sept.

Existe-t-il une amblyopie par anopsie? Rogman (Gand), 22, Sept.

Ophtalmie metastatique de l'œil gauche, ulcère serpigineux de l'œil droit, conjonctivite bilatérale à pneumococques chez une malade atteinte de pneumonie. Paul Petit (Rouen), 22, Sept.

Anesthésie générale par le chlorure d'éthyle en oculistique. Camille Fromaget (Bordeaux), 22, Sept.

Angio-fibrome de l'orbite, modification au procédé de Kroenlein. H. Parinaud et L. Roche. 22, Oct.

Complications extra-oculaires de l'ophtalmie sympathique. L. de Wecker, 22, Oct.

De la dacryoadénite palpébrale suppurée. L. Lor (Bruxelles), 22, Oct.

Des altérations oculaires consécutives aux névralgies de la cinquième paire. Kalt, 22, Oct.

Anesthésie dans l'exentération du globe oculaire. Braunschveig (Havre), 22, Oct.

Traitement des affections des voies lachrymales par les sondes de gélatine au protargol. Antonelli, 22, Oct.

Un cas d'ostéome géant du sinus sphénoïdal. A. Gallet et H. Coppez, 28, Sept.

Paralysie traumatique du petit oblique. A. Terson, 38, Sept.

Autoplastie palpébro-palpébrale à pédicule dans le traitement de l'ectropion cicatriciel de la paupière inférieure. Dupuy-Dutemps, 38, Sept.

Kyste dermoïde à contenu huileux de l'angle interne de l'orbite gauche. Chavasse, 38, Oct.

Étude sur les kystes de l'iris. F. Terrien, 38, Oct.

Étude sur le ptérygion. C. Trapesontzian, 38, Oct.

La forme du cristallin humain. Edoardo Besio (Gênes), 172, Juli et Sept.

Encore le glaucome primitif en Orient. G. Bitzos, 330, Sept.

Du Traitement des keratites suppuratives (suite et fin). F. Perrin, 330, Sept.

De la compression et de la ligature de la carotide primitive dans le traitement de l'exophtalmos pulsatil. P. Rascalon, 330, Août.

Blessures oculaires par les lunettes de travail. A. Bourgeois (Reims), 330, Août.

Nouvelle curette-aiguille pour faciliter l'extraction des cataractes dures à gros noyau. Spilios J. Charamis (Athènes), 330, Août.

Memoire sur la vérification des ophtalmomètres et la graduation des lunettes d'essai. Emile Javal, 22, Jan.

Kystes orbitaires a parois vegétantes et a début brusque. M. Kalt, Idem.

Nécrose et gangrène des paupières. M. V. Morax, Idem.

La transmission des granulations en Égypte. L. de Wecker, 22, Jan.

De l'amputation du Segment Antérieur de l'œil avec suture en bourse et capitonnage musculaire. Félix Lagrange, Idem.

Étude clinique des lésions conjonctivales au cours de l'érythème polymorphe. J. Chaillous, 22, Mars.

Le traitement du pannus par l'électrolyse péri et supra-cornéeme. L. Lor, Idem.

Infiltration lymphoïde bilaterale de la conjonctive des culs-de-sac. Valude et Morax, 22, Mars.

De l'énucléation chez les enfants—Ses inconvénients. Un procédé a lui substituer. Dianoux, Idem.

Différenciation de la conjoncitivite granuleuse des infections aigues conjonctivales. V. Morax, 22, Mars.

Troubles oculaires méningitiques. A. Leprince, Idem.

Une particularité dans les symptômes de certaines paralysies oculaires. Marc Landolt, 38, Jan.

Un point d'histoire de l'operation du Strabisme. Antonelli, Idem.

Pathogénie et traitement du glaucome. Panas, 38, Fév.

A propos des tumeurs périlbulbaires. F. de Lapersonne, Idem.

Un Kystitome. E. Landolt, Idem.

Embolie simultanée de l'artère centrale des deux rétines. Van Duyse, Idem.

Altérations du sang produites par les morsures des serpents venimeux. B. Auché et L. Vaillant-Hovius, 40, Mars.
Traitement des kératites par l'électrolyse. E. Gallemaerts, 200, 10 Janv.
Traitement du xanthome par l'électrolyse. L. Lepeat, 200, 25 Janv.
Sur les altérations de la rétine dans les anémies chroniques provoquées par des néoplasmes. Pick (Königsberg), Idem.
Le Cuprol, nouveau médicament pour le traitement des conjonctivites. Sicherer, Idem.
Radioscopie et Radiographie. A. Bourgeois, 200, 10 Fev.
Traitement du ptosis des granuleux après la guerison, par la massage palpébral. Bouchard, 200, 25 Fev.
Du rétrécissement hémiopique du champ visuel chez les tabêtiques. Sa valeur prognostique. R. Jocqs, 200, 10 Mars.
Elephantiasis lymphangiectasique et lymphangiome caverneux des paupières, Idem.
Cornes palpébrales. Terson, 200, 10 Mars.
Deux cas de fracture de la voute orbitaire. Guerison, Guilbert, Idem.
Applications du diploscope au diagnostic et au traitement de, altérations de la vision binoculaire. A. Rémy, 330, Jan., Feb.
L'ulcère serpigineux de la cornée et son traitement. Vieusses Idem.
Sobre una forma rara de parálisis asociada del motor ocular externo y del hipogloso. Manuel Márquez, 333, 5 Febr.
Rares complications oculaires des oreillons. Strzeminski, 330, Fev.
Paralysie faciale et paralysie des mouvements associés de latéralite des globes oculaires du mème côte.—Examen électrique. Péchin et Allard, 340, Janv.
Blessures du globe et de l'orbite par armes à feu. Panas, 38, Mars.
Anatomie pathologique des dacryoscystites catarrhales et purulentes chroniques, et curettage du canal naso-lacrymal. Tartuferi, Idem.
Luxatio bulbi facialis traumatica. Rothenpieler, 75, 49. Heft.
Das Verhalten der Accommodation beim Stereoskopischen Sehen. Otto Weiss, 53, lxxxviii. 1 and 2.
Tabelle der Zur Accommodation auf verschisdene Entfernungen nöthigen Linsenwölbungen, Idem.
Eisensplitter im Augeninnern und zwei Fälle von Kryptosarcom der Chorioiden. W. Goldzieher (Budapest), 98.
Metallischen Fremdkörper im Auge. E. Franke (Hamburg), Idem.
Die Theorie der Augenmagnete. Wilhelm Volkmann (Berlin), 193, xl, 1.
Ueber den Einfluss des intraarteriellen Druckes auf Pupille und intraocularen Druck. Heine (Breslau), 193, xl, 1.

Bacterium coli als Erreger einer Hypopyon-Keratitis. Zur Nedden (Bonn), 193, xl., 1.
Primitives Angiosarkom (Peritheliom) der Hornhaut. Arnaldo Fumagalli, Turin, Idem.
Ueber Enophthalmus beim Auseinander-Ziehen der Lider. W. Förster (Rostock-Bern), 193, xl., 1.
Ein Beitrag zur Frage des "Dilatator iridis." W. Stock (Freiburg), 193, xl., 1.
Zwei Aptische Täuschungen. W. A. Nagel (Freiburg i. Br.), 460, xxvii. H. 4.
Werth der Lidbildung Mittelst Uebertragung stielloser Hauttheile. Herman Kuhnt, 450, vii. H. 1.
Entwicklung der Binnenmusculatur des Auges. H. Herzog (Berlin), Idem.
Bakteritische Embolien des Sehnerven. v. Michel (Berlin), 450, vii. H. 1.
Symmetrischen Orbitaltumoren. W. Goldzieher (Budapest), Idem.
Stereoskopie und Tiefenwahrnehmung in Dämmerungssehen. W. A. Nagel (Freiburg i. Br.), 460, xxvii. H. 4.
Wirkung des Santonins auf den Farbensinn, insbesondere den dichromatischen Farbensinn. W. A. Nagel (Freiburg i. Br.), Idem.
Ein Fall von doppelseitiger Erdlindung durch Schläfenschuss. Laqueur, 47, Feb.
Ueber Schläfenschüsse mit Betheiligung des Sehorgans. Nicolai, Idem.
Ist der Nystagmus der Bergleute Labyrinthären Ursprungs? Peters, Idem.
Ueber die Kalktrübung der Hornhaut und ein Verfahren zu ihrer Aufhellung. Guillery, 47, Feb.
Klinische Beobachtungen über Jequiritol und Jequiritolserum. Salffner, Idem.
Anatomischer Befund bei einem myopischen nasalen Conus. Herm. Symens, Idem.
Gefäss veränderungen in Augen bei Chronischer Nephritis. Herm. Hofmann, 47, Feb.
Transparente Sehproben und Projections-demonstrationstafeln. M. Reimar, Idem.
Antwort auf die Bemerkung des Herrn Prof. Dr. W. A. Nagel seiner Arbeit "Ueber das Bell'sche Phänomen." Garten, Idem.
Sehnerv und Arteriosclerose. Liebrecht, 47, Dec.
Iritis bei einem Neugeborenen. Hoppe, Idem.
Beitrag zur Kenntniss der Keratitis interstitialis punctata specifica. V. Ammon, Idem.
Tabelle zu meinen Sehproben. Guillery, Idem.
Der Pathologischen Anatomie der Chorioretinitis disseminata. Murakami, 50, liii. B. 3 H.

Der Anatomie und Entwicklungsgeschichte der hinteren Irisschichten. A. Szili, jr., Idem.
Doppelseitiger schwerer Pneumocokkeninfection der Augen nach Masern. E. Hertel, Idem.
Ueber die Veränderung der Refraction und Sehschärfe nach Entfernung der Linse. K. Bjerke, 50, liii. B. 3 H.
Spontane Berstung der Linsenkapsel und selbstentbindung des Linsenkerns aus dem Auge. V. Hippel, 75, 49. H.
Konzentrisch-zonuläre Gesichtsfelddefekte des Myopischen Auges. Wettendorfer, Idem.
Pathologie des Chorioidalsarkoms. Berl., Idem.
Beitrag zum Wiedersehenlernen Blindgewordener. Seydel, 192, Feb.
Ein Neuer Augenmagnet. Volkmann, Idem.
Ueber Infektion vom Conjunctivalsack und von der Nase aus. Stock, Idem.
Ein Fall von Naphthalincataract am Menschen. Lezenius, Idem.
Extirpation des Ganglion cervicale supremum nerv. sympath. bei Glaukom. Altland, 193, Feb.
Ueber den skiaskopischen Strahlenverlauf, Idem.
Die Zunahme höherer Kurzsichtigkeit bei Unterkorrektion für die Nähe. Meyerhof, 193, März.
Einige Bemerkungen zu den schematischen Augen. Trentler, Idem.
Zur Behandlung des Ulcus corneæ rodens. Handmann, Idem.
Ueber den Wert der Annähernden Grössenbestimmung der intraocularen Eisenspeitter vor der Elektromagnet-Operation. Asmus, 193, März.
Giebt es eine endogene toxische Wundentzündung am Auge? Schinamura, Idem.
Ueber die Skiaskopietheorie, die skiaskopische Refraktions, messung und über mein elektrisches Skiaskopophthalmometer. Wolff, 450, März.
Subconjunctivale Scleralperforation durch einen Pfeilschuss. Stoewer, Idem.
Bericht einer oculistischen Abteilung in Sibirien. Putiata-Kerschbaumer, Idem.
Ueber den Werth der Lidbildung mittelst Uebertragung stielloser Hauttheile. Kuhnt, 450, Feb.
Ueber die nach Kalkinsulten auftren den Hornhanttrübungen. Rosenthal, Idem.
Weiterer Beitrag zum Klinischen Verhalten intraocularer Eisensplitter. Cramer, Idem.
Sulla controversa questione del dilatatore della pupilla nei mammiferi e nell' uomo; ricerche istologiche. Giovanni Petella (Torino), 25, ii. 1.
Melanosarcoma epibulbare. Due osservazioni cliniche ed anatomiche. D. de Berardini, 26, xxx. 4.

Secondo contributo sperimentale a clinico alla conoscenza dell' ottalmia simpatica. Elvidio Gasparrini-Docente, 26, xxx. 4.
Di alcuni casi di glaucoma posteriore successivo alla neurite. Contributo clinico. Elvidio Gasparrini-Docente, 26, xxx. 4.
Di due operati di cataratta dell' istituto dei Ciechi di Milano. L. Ferri, 26, xxx. 4.
Sopra un caso di endotelioma delle guaine del nervo ottico. Amilcare Bietti, 26, xxx. 4.
Modificazioni alla operazione di trichiasi, della surrenalina come mezzo di ischemia operatoria (note cliniche). Erinolli Luciano (Milano), 26, Anno xxx. 5 e 6.
Sue due osservazioni di tubercolosi cronica della coroidea. Nota clinico. Ernesto Sgrosso (Napoli), 26, Anno xxx. 5 e 6.
Intorno all' influenza della temperatura sulla formazione della porpora retinica. Alfredo Gatti, 26, xxx. 5 e 6.
Considerazioni clinico critiche su altre quattro operazioni alla motais in blefaroptosi congenite. Pietro Grossetti e C. de Vincentiis, 26, xxx. 5 e 7.
Un diottrimetro oculare. C. Doniselli (Milano), 26, xxx. 7.
Contributo allo studio della tubercolosi oculare. Primitiva della congiuntiva bulbare. Domenico Bossalino, 26, xxx. 7.
Tubercolosi della congiuntiva. D. De Berardinio (Napoli), 26 xxx. 7.
Sulla batteriologia delle congiuntiviti. Amilcare Bietti (Pavia), 26, xxx. 7.
Di un coloboma congenito della palpebra superiore destra. Gennaro Colucci (Napoli), 26, xxx. 7.
Sobre el desnivel de las imágenes de las miras del oftalmómetro en la córnea astigmata. Agustín Chacón, 125, i. No. 24.
Misure sperimentali dell'emeralopia e del torpore retinico (Parte 1a). G. Colombo, 26, Anno XXX. Fasc. 8, 9.
Estrazione di un cisticerco subretinico. A. Bocchi, Idem.
Appunti di batteriologia oculare. Orlando Pes, Idem.
Influenza del sistema nervoso sulla costituzione dell'umore acqueo. Influenza del simpatico cervicale. Gaetano Lodato, 58, An. IX., ix. Fasc. 3, 4.
Una forma insolita di emianopsia. Magnani Torino, 58, ix. Fasc. 3, 4.
Un caso di vantaggiosa applicazione della cataforesi alla terapia oculare. Colombo, Idem.
Congiuntivite acuta del cane. Ricerche batteriologiche. F. Alessandro, 58, ix. Fasc. 3, 4.
Amaurosi completa bilaterale acuta da intossicazione alcoolica. F. P. De Bono (Palermo), Idem.
Vizio congenito ed ereditario della statica del bulbo. P. M. Varese, 58, ix. Fasc. 3, 4.
Refrazione e correzione ottica del cheratocono. Gaetano Lodato, Idem, Fasc. 5, 6.

Curvatura della cornea nell'Astigmatismo regolaro congenito. F. Alessandro, 58, ix. F. 5, 6.

Maturazione artificiale della Cataratta Mediante punzione multipla della cristalloide anteriore. F. Alessandro, Idem.

Determinazioni d'acutezza visiva mediante ottotipi a fondo colorato. Giovanni Colombo, 58, ix. Fasc. 5, 6.

Circa l'osservazione della membrana capsulo-pupillare (Tunica vasculosa lentis). G. Corrado, 132, An. XI.

Importanza dell'esame microscopico dei vasi della congiuntiva nell'uomo in vita. P. Bajardi, 133, An. LXIV.

Sulla sifilide oculare. G. Lavagna, 133, An. LXIV.

Una forma insolita di emianopsia. C. Magnani, Idem.

Determinazioni d'acutezza visiva mediante ottotipi a fondo colorato. G. Colombo, 58, Gen.-Feb.

Un Nuovo modello di oftalmotonometro. Michelangelo de Cristofaro e Orso Sassi, 133, Gen.

Misure sperimentali dell' emeralopia e del torpore retinico, (continuaz). Giovanni Colombo, 26, an. xxx. F. 10, 11.

Sopra l'effetts prismatico delle lenti discentrate (2a nota). Orlando Orlandini, 26, an. xxx, F. 10, 11.

Sulla struttara del vitreo embrionale e de'neonati sulla matrice, del vitreo e sull'origine della zonula (Ric. cont.). C. Addario, Idem.

Breve nota acerca de la oftalmia simpatica. José Ramos (México), 125, Sept., 15.

OTOLOGY.

Tumor of Middle Ear springing from the inner and posterior Tympanic Walls, simulating Exostosis but consisting of Calcareous Laminæ. Wm. C. Braislin, 37, xxx. 6.

The Microscope as an Aid to Diagnosis and Prognosis in Chronic Suppuration of the Middle Ear. E. F. Snydacker (Chicago), Idem.

Meningitis from extension of acute purulent otitis media through osteo-myelitis of the petrous bone. Operation. Autopsy. Arnold Knapp, 37, xxx. 6.

Otogenous Disease of the Brain, Meninges, and Venous Sinuses. Witte and Sturm (Rostock), Idem.

Accidental Removal of Auricle by Midwifery Forceps, and Successful Application of Artificial Auricle. James Erskine, 82, Jan. 4.

Tortuosity of Both Internal Carotid Arteries. R. P. Rowlands and R. H. J. Swan, 82, Jan. 11.

Unilateral Deafness, due to Suppuration of Accessory Nasal Sinuses. J. F. Crouch, 182, Jan.

Hæmorrhages from the Ear in Hæmophilia. Tomka Samu, 242, Feb. 26.

Necrosis of the Osseous Labyrinth. R. Lake, 183, Mch.
Mastoiditis. Edward J. Bernstein (Baltimore), 185, Jan.
An Analytical Study of the Memory Image and the Process of Judgment in the Discrimination of Clangs and Tones. Guy M. Whipple, 188, July, Oct.
Improvements in the Vernier Chronoscope. E. C. Sanford, Idem.
Fluctuations of the Attention to Musical Tones. E. B. Titchener, Idem.
Schwartze-Stacke Operation for Chronic Suppurative Otitis Media, Re-formation of the Tympanic Membrane; Secondary Myringectomy; Improved Hearing. M. D. Lederman, 215, Jan.
Mastoiditis with Unusual Clinical History. Ralph W. Seiss (Phila.), Idem.
Acquired Deaf-Mutism, Probably due to Cerumen. Mayo Collier, 242, Jan. 15.
Chronic Progressive Deafness. Mayo Collier, 242, Feb. 5.
Treatment of Chronic Non-Suppurative Disease of the Middle Ear by the Application of Superheated Air. Macleod Yearsley, 254, Jan. 18.
The Diagnosis and Treatment of Pain in the Ear, Idem, 254, Jan. 25, Feb. 1.
Some Aural Complications of Influenza. S. MacCuen Smith (Phila.), 310, Jan. 11.
Otorrhea in Children. Max Toeplitz (New York), 313, Feb.
Inflammation of the Middle Ear. Jas. F. McKernon, 313, Nov.
Tinnitus Aurium, Cause and Treatment, 215, Mch.
Ear Complications and Sequelæ of Influenza. Goldstein, Idem.
Scarlatinous Empyema of the Anterior-superior Squamomastoid Cells. Burnett, 5, March.
Modern Mastoid Trephining Operations. Randall, 5, April.
Indications for the Mastoid Operation. Hammond, 9, April 12.
The Recording of Ear Cases. Randall, 29, Feb.
A Year's Experience in the Treatment of the Eustachian Tube by Means of the Electric-Bougie. Harris, Idem.
Antrectomy. Lenoir. Trans. by Loeb, Idem.
Does early treatment of acute inflammation of the middle ear prevent the more serious complications? Meierhof, 37, Feb.
Catarrhal Otitis Media (Non-Suppurative) as a Factor in the Ætiology of Facial Paralysis. Reik, 88, April.
Sinusoidal massage of the middle ear. Brooks, 144, Mch.
Treatment of Catarrhal Deafness. Jewett, 144, Mch.
Experiment with Sinusoidal Massage of the Middle Ear. Brooks, Idem, April.
Somnolence and Loss of Memory from Cholesteatoma of the Middle Ear. Packard, 240, Mch. 8.
A Case of Otitic Brain Abscess and its Lesson, 245, Mch. 15.

Méningite consécutive a une otite chronique ayant simulé un abcès Cérébral. A. Broca et G. Laurens, 21, Jan.

Pyohémie otogène thrombo-phlébitique. Marcel Lermoyez, Idem.

Abcès extra-dural avec pachyméningite d'origine otique evidement du rocher. Guérison, G. Laurens, 21, Féb.

L'extrait de capsules surrénales en oto-rhino-laryngologie. Louis Vacher, 21, Mars.

Difficultés du diagnostic de certaines complications cérébrales d'origine otique. Chavasse, 210, Janv.

Exercices acoustiques methodiques dans la surdi-mudité. Victor Urbantschitsch, Idem.

Nécrose de l'ápophyse mastoïde consécutive à une otite aiguë. H. Royet, Idem.

Un cas de pyohémie otique sans phlébite; choroïdite suppurée du cote opposé, 343, 11 Jan.

Un cas d'algie mastoïdienne hystérique. Georges Gellé, 42, Jan., Fev.

Du traitement du lupus de l'oreille et du nez par l'air chaud. Lichtwitz, Idem.

Nachbildern und der totalen Farben-blindheit. C. Hess, 47, Dec.

Ueber die Erfolge der zu akustischen Zwecken unternommen chirurgischen Eingriffe in der Trommelhöhle. G. Gradenigo, 48, B. 54. H. 1. u. 2.

Die Bedeutung der Lumbalpunction für die Diagnose intracranieller Complicationen der Otitis. Braunstein, 48, 54. B. 1. u. 2. H.

Ueber die Exenteratio cavi tympani zu akustischen Zwecken. G. Gradenigo, 48, 54. B. 2. u. 3. H.

Zwei physiologisch-akustische Vorträge, gehalten auf der 73 Versammlung deutscher Naturforscher und Aerzte zu Hamburg in Sept. 1901. 1. Function des memb. des runden Fensters. 2. Ueber eine erfolgreiche Operation am runden Fenster. Lucae, Idem.

Historische Notiz über Cholesteatom des Schläfenbeins. H. Schwartze, 48, 54 B. 1. u. 2. H.

Die Krankheiten des Gehörorgans unter den Volksschulkindern des Kreises Marburg. Ostmann, 48, 54 B. 3. u. 4. H.

Ueber die Betheiligung des Nervus Facialis beim Lauschen. Ostmann, Idem.

Zur Thrombose des Bulbus Venae Jugularis. Stenger, Idem.

Ueber Diplacusis Monauralis. E. Berthold, Idem.

Arrosion des Gehirns in Folge von Cholesteatom, durch bruch Cholesteatomatöser massen in den Seitenventrikel. R. Haug, Idem.

Ueber die durch Tuberculose der nächsten Blutsverwandten geschaffene Disposition zu Ohrerkrankungen bei Kindern. Ostmann, 48, B. 55. H. 1. u. 2.

Zur Pathologischen Anatomie der Gehörknöchelchenkette, 48, B. 55. H. 1. u. 2.
Ein Fall von Carotisblutung. Hermann, Idem.
Ruptur der Arteria Carotis interna bei Affection des Mittelohres. Jürgens, 265, Jan.
Verbesserung des Gehörs bei "künstlichem Trommelfelle." Bentzen, Idem.
Vier Fälle des Ménière'schen Symptomencomplexes. Bylsma, 265, Feb.
Die Rolle der Lymphdrüsen in der Umgebung des Ohres. Jürgens, Idem.
Schwindel. Panse, 455, B. xli. H. 1.
Zur pathologischen Anatomie der Taubstummheit. Schwabach, Idem.
Die Ohrcomplicationen bei einer Schweren Typhus-epidemie, Idem.
Otitis media acuta. Kleinhirn-Abscess; Operation. Tod in Folge von Meningitis. Phillips, 455, xli. B. 1°. H.
La evolución del órgano auditivo en la escala zoológica. Suñé y Moliste, 126, 15 de Marzo.

LARYNGOLOGY AND RHINOLOGY.

Are the Tonsils to be regarded as Normal Physiological Organs of the Body? F. H. Bosworth (N. Y.), 245, Jan. 11.
Goiter Treated Successfully with the Thyroid Extract. M. E. Scriven, 157, Jan. 29.
One of the Ætiologic Factors in the Poduction of Deflected and Deformed Nasal Septum and Methods for its Relief. Nelson M. Black (Milwaukee), 9, Feb. 15.
A Note on Osteophytes of the Nasal Chambers. Alex. W. MacCoy, 5, Feb.
Sarcoma of the Radix Linguæ. Geo. E. Shambaugh, 5, Jan.
Affections of the mouth and throat associated with the fusiform bacillus and spirillum of Vincent. Emil Mayer, 5, Feby.
Artificial Respiration by direct intra-laryngeal intubation with a modified O'Dwyer tube and a new graduated air-pump. Rudolph Matas (New Orleans), 9, Jan. 18.
Lupus of face, nose, pharynx, and larynx, with rare deformity of larynx. Samuel E. Allen (Cincinnati), 29, Nov.
Epipharyngeal lympho-sarcoma in a boy. Henry L. Wagner (San Francisco), Idem.
Vomiting with Tracheotomy Tube in situ. Otto Sommers, Idem.
Treatment of tuberculous laryngitis. St. Clair Thompson (London), 29, Nov.
Early Operation for congenital Cleft Palate. Julius Wolff, Idem.
Congenital Cysts of the Tongue. John W. Cousins, 82, Mch. 1.

Observations on Intubation of the Larynx. E. W. Goodell, 120, Mch.
An Unusual Sequela of the Adenoid Operation. Richard Arthur, 157, Feb. 12.
A Clinical Lecture on some of the Medical Aspects of Adenoid Vegetation as exhibited in Infancy and Childhood. Robt. Hutchinson, 105, Jan. 29.
Clinical Lecture on Congenital and Tertiary Syphilis of the Air Passages. Anthony Bowlby, 105, Feb. 19.
Some Observations on Chronic Suppuration of the accessory nasal cavities. Dudley Wright (London), 144, Feb.
Acute Post-Nasal Tonsilitis. Orrin Lelroy Smith (Chicago), Idem, Feb.
Nature and Histo-Pathology of the Epipharyngeal Tonsil. Norval H. Pierce (Chicago), 175. Jan. 4.
Surgical Correction of Malformation and Speech Defects associated with Hare-Lip and Cleft Palate. Geo. V. I. Brown (Milwaukee), 175, Jan. 18 and 25.
Laryngeal Tuberculosis. R. Lake, 183, Feb.
Laryngeal Perichondritis in a Diabetic Subject. Arthur J. Hutchinson, 183, Mch.
General Anæsthesia for the Adenoid Operation. Editorial, 185, Jan.
Treatment of Epistaxis. Orrin L. Smith, Idem.
Treatment of Ozæna. Geo. F. Bagby (Richmond), Idem.
Intra-Nasal Surgery and Pathology of the 17th and 18th Centuries. Jon. Wright (Brooklyn), 215, Feb.
Malignant Growth of the Uvula. F. C. Raynor (Brooklyn), Idem.
Hæmorrhage following Adenotomy and Tonsillotomy. Dunbar Roy (Atlanta), Idem.
Nose and throat in the History of Medicine. Jon. Wright (Brooklyn). 215, Jan.
Rhinoliths. S. S. Bishop (Chicago), Idem.
External and internal deformity of the nose corrected. T. Passmore Berens (New York), Idem.
Tubercular and Syphilitic Granulomata of the Nose. Wm. Lincoln (Cleveland), Idem.
Fibroma of the Naso-pharynx. J. H. Phillips (San Francisco), 215, Jan.
A Case of Noma. H. L. Burrell, 235, Jan. 9.
Notes on the Management of the Anæsthetic in Operations on the Respiratory Tract. H. P. Mosher (Boston), 235, Jan. 23.
On Cleft Palate. W. Arbuthnot Lane, 225, Feb. 15 and 22.
Six Cases of Operation for Cleft Palate. C. A. Porter (Boston), 235, Feb. 6.
Treatment of Congenital Cleft Palate by Mechanical Appliances. Geo. A. Raymond (Boston), Idem.

Follicular Tonsilitis. R. C. Brown (Milwaukee), 245, Mch. 1.
Eye, Ear, and Throat Sequelæ of Typhoid Fever. L. D. Brose (Evansville), 280, Feb. 15.
Respiratory Functions of the Nose and their Bearing on Diseases of the Air Passages. Macleod Yearsley, 254, Mch. 1 and 15.
General Anæsthesia and Its Administration in Throat Surgery. M. L. Maduro, 280, Feb. 22.
The Persistence of diphtheria bacilli in chronic discharges from the middle ear after their disappearance from the throat. Howard P. Bellows, 285, Jan.
Duration of Immunity by Diphtheria Antitoxin. Henry D. Jump (Phila.), 310, Jan. 11.
Hay Fever; A Rational View of its Ætiology. Geo. B. Best, 285, Feb.
Note on Treatment of Follicular Tonsilitis. Chas. W. Dulles (Phila.), 310, Jan. 11.
Pathogenesis of lacunar keratosis of the tonsil. Geo. B. Wood, 400, Jan.
Deviation of the Nasal Septum. Jackson, 215, Mch.
Operation for removal of septal spurs. Idem.
Vapor Massage, Origin and Uses. Hawley, Idem.
Nose and throat in the history of medicine. Idem.
Empyema of the frontal sinus: some observations on its treatment. Richards, 5, Mch.
Diagnosis of latent frontal sinusitis. Shambaugh, Idem.
Case of dermoid cyst of mouth. Critical review of the literature. Cumston, Idem.
Stomatitis Gangrenosa (Noma). Fischer, 5, April.
Persistent Laryngeal Stenosis. Griffith, 9 Mch. 1.
Suggestions to Anæsthetizers. Simpson, Idem.
Adrenalin as an addition to solutions for local anæsthesia. Elsberg, Idem.
Clinical report of two cases of osteo-sarcoma of the inferior maxilla treated by excision. Gessner, 9, Mch. 8.
Sprue or Psilosis in Manila. Musgrave, Idem and 15th.
Pemphigus, with a report of a case of Pemphigus Foliaceus involving the mucous membrane of the respiratory tract. Russ, 9, Mch. 15.
Old compound depressed fracture of the frontal bone, involving the frontal sinuses. Macdonald, 9, Mch. 8.
Responsibility of the general practitioner in diseases of the nose and throat. Sinexon, Idem.
Perforation of the Septum Narium. Richardson, 29, Feb.
Isolated, Unilateral, latent empyema of the sphenoidal sinus, with delirium and mental symptoms. Operation. Recovery. Wright, Idem.
Superheated Compressed Air in the therapeutics of chronic catarrhal otitis media. Hopkins, Idem.

Salient Points in treatment of syphilitic lesions of the nose and throat. Cobb, 29, Feb.
Treatment of Laryngeal Tuberculosis. Campbell Brown, Idem.
Hysterical Mutism in History. Leroy, Idem.
Diseases of the nasal accessory cavities. Copeland, 141, Feb.
Treatment of Œdema of the Uvula. Kershaw, and discussion, 144, Mch.
Removal of a foreign body from the trachea by means of an electro-magnet. 173, Mch.
Effects of electro-static modalities upon hyperæmia and pain. Snow, 713, Mch.
Therapeutics of dry hot air. Skinner, Idem.
Treatment of Stricture of the Lachrymal Duct by Electrolysis, Idem.
Ozæna and its Treatment, 173, Mch.
The X-rays in the Diagnosis of foreign bodies in the air passages. 173, Apl.
Correction of deflections of the nasal septum with mimimum traumatism. Freer, 175, Mch. 8.
Prolonged intubation. Rosenthal, Idem and Mch. 22.
Rhinoliths and Foreign Bodies in Nose. Ingersoll, 245, Apl. 12.
Scleroma of the Trachea. Van Schroetter, 185, Mch.
Œdema of Uvula. Treatment. Kershaw, 144, Mch.
Urticaria of the upper respiratory tract. Somers, 240, Mch. 8.
Sarcoma of the Tonsil, 280, Apl. 12.
Phenomenon Observed on the Tongue in Acute Malarial Infection. Lofton, 280, Apl. 12.
Two Cases Operated on for Deformity of the Nose, 235, Mch. 6.
Drug Treatment of Catarrh. Douglass, 313, Mch.
Deviation of the Nasal Septum. Forsyth, 85, Apl.
On a Cyst originating from the Ductus Thyreoglossus. Robinson, 88, April.
Traitement du lupus par le permanganate de potasse. Jacques Dupuy, 15, Mars.
Contribution a l'étude des troubles nerveux en rapport avec la présence de végétations adénoides dans le pharynx nasal de l'enfant. L. R. Regnier, 21, Fév.
Brulure du larynx par une pilule de Dupuytren. J. Garel (Lyon), 21, Jan.
Vertige d'origine nasale. F. J. Collet, 21, Fév.
Nouvel instrument (septotome) pour redresser les cloisons nasales deviées. Consteau (Paris), Idem.
De la mensuration graphique de la perméabilité des fosses nasales. A. Courtade. Idem.
Étude histologique de la tuberculose miliaire du pharynx. E. Gaucher et Lacapère, 40, Janv.
Les modifications du sang après l'extirpation du corps thyroïde. D. Mezincescu, 40, Mars.

De la position du Malade dans les Opérations sur la tête et le cou. H. Morestin, 128, 20 Fev.
La Parole avec un larynx artificiel. L'abbé Rousselot, 210, Fèv.
Limite physiologique et pathologique de l'ouïe pour la partie la plus important de la gamme. H. Struycken, 42, Jan., Fev.
Sequelæ of Diphtheria. Goullou in Leipziger Pop. z. f. Hom. Nov. Hom. Recorder, Jan.
Die Resection der unteren Nasenmuschel. Wroblewski, 49, B. 12. H. 3.
Retrograde Veränderungen der Gaumen-tonsillen. Goodale, übersetzt Baur, Idem.
Ueber die Heilbarkeit der Rachentuberculose. Julius Veis, 49, 12 B. 3 H.
Ein Beitrag zu den nasalen Reflexneurosen. Eduard Aronsohn, Idem.
Die Sondirung des Ductus Nasolacrymalis von der Nase aus. Ludwig Polyák. Idem.
Larynxtuberculose und Gravidität. Arthur Kuttner, 49, B. 12. H. 3.
50 Sections befunde der Nase und deren Nebenhöhlen unter Berücksichtigung der Gesichtsschädelmasse. Minder, Idem.
Die Ozæna. Eine Monographie und Studie. Grosskopff, 195, 5 B. 5 H.
Empyema antri Highmori und Peritonitis Acuta. Reitter, 652, Jan.
Zur Kentniss der "fleckweisen Kehlkopfentzündung und isolirten fleckweisen Taschenlippenerkrankung." Richter, 265, Feb.
Alcohol zur Desinfection und zur Verhütung des Anlaufens des Laryngo-rhinoscopischen Spiegels. Heschelin, Idem.
Ausräumung der Nase vom Munde her. Löwe, 265, März.
Ein Neuer Zerstäuber für Nase, Rachen Lowie Kehlkopf. Richter, 265, März.

BOOK REVIEWS.

THE THERAPEUTICS OF FACIAL AND SCIATIC NEURALGIAS, WITH REPERTORIES AND CLINICAL CASES. By F. H. LUTZE, M. D. Boericke & Tafel, Philadelphia, 1898. Pp. 298.

A handy little volume that may prove invaluable at any moment. How frequently does the character of the ciliary neuralgia individualize a case of glaucoma, iritis, keratitis, or empyema of the frontal mastoid or maxillary antrum. The title page quotes

Hahnemann : "When we have to do with an art whose end is the saving of human life, any neglect to make ourselves thorough masters of it becomes a crime." When one has decided to employ internal medication for the relief of facial neuralgia, the search for the curative remedy will be decidedly facilitated by this clear-cut, well-arranged little volume. The reviewer has seen the indicated remedy relieve the agonizing pain of a fatal brain tumor more promptly, more completely, for a longer time than morphin or codein, and without the nervousness and depression which follow those drugs. Our author has frequently seen rare symptoms—such as some term "useless chaff"—lead to a grand cure. They do not occur frequently, but are they not therefore the more peculiar and characteristic ? J. L. M.

Ophthalmic Diseases and Therapeutics. By A. B. Norton, M. D., Professor of Ophthalmology in the College of the New York Ophthalmic Hospital ; Surgeon to the New York Ophthalmic Hospital ; Oculist to the Hahnemann Hospital, and to the Laura Franklin Free Hospital for Children ; President American Institute of Homœopathy ; Ex-President American Homœopathic Ophthalmological, Otological, and Laryngological Society; Ex-President Homœopathic Medical Society of the State of New York ; Editor Homœopathic Eye, Ear, and Throat Journal, etc. 3d Edition, Revised and Enlarged. Ninety illustrations and 18 chromo-lithographic figures. Boericke & Tafel, Philadelphia, 1902. Pp. 659. Cloth, $3.00 net, by mail $3.36 ; half-morocco, $4.00 net, by mail $4.36.

The third edition of this classic work—*the* homœopathic textbook on this subject—is much increased in value by a clear, concise, eight-page "clinical index" of reliable keynotes, arranged by Dr. E. S. Munson.

The twenty-three chapters (482 pp.) of part I are thoroughly up to date in every respect and so clearly written as to be invaluable to the general practitioner and to the student. Chapter VI. is a valuable table (from E. H. Linnell's *The Eye as an Aid in General Diagnosis*) of "Diseases with More or Less Characteristic Eye Symptoms." The ensuing seventeen chapters consider the affections of the eye in anatomical classification with their treatment, including indications for their most prominent homœopathic remedies.

Dr. Norton is satisfied (and we agree with him) that prolonged

use of the carefully selected homœopathic remedy can check the progress of incipient cataract and in many cases clear up a portion of the diffuse haziness, providing degeneration of the lens fibers has not taken place. Refractive and muscular errors must of course be corrected. Reported cures of cataract with a few doses of a remedy are probably cases of mistaken diagnosis. In our author's "Hundred Cases of Incipient Senile Cararact Treated Homœopathically" (*No. Am. J. of Hom.*, December, 1891) "one half of all under observation for two years or over showed no failure of vision nor increase of opacity, and in about one-third more there had been but very slight loss of vision. In those cases with vision better than $\frac{15}{50}$ at commencement of treatment there was no increase of cataract in about sixty per cent.; when vision was not better than $\frac{15}{50}$, the progress of the cataract seemed checked in but forty-five per cent. of the cases treated."

Rhus toxicodendron is unrivaled in traumatic inflammation of the uveal tract (as after cataract extraction). Experience shows it to be of value in preventing suppurative inflammation after severe operations upon the eye. "For suppurative inflammation of the iris or of any part or the whole of the uveal tract (non-traumatic) rhus has been known to restore the eye *ad integrum;* even if pus has formed, it may cause its absorption. Not a moment can be lost in arresting this disease; if most prompt results are not found from the higher potencies in a few hours, give the first; we cannot afford to produce in a sensitive subject an aggravation with large doses."

The illustrations are good; the typography, paper, and binding as unexceptionable as Boericke & Tafel have led us to expect—except that the three pages of chromolithographs in our copy have been inserted in the midst of the Clinical Index, instead of following the four pages of bibliography. No oculist should be without this book. J. L. M.

Diseases and Therapeutics of the Skin. By J. Henry Allen, M. D., Professor of Skin and Venereal Diseases, Hering Medical College, Chicago. Boericke & Tafel, Philadelphia, 1902. Pp. 347. No illustrations. Price, cloth, $2.00 net; by mail, $2.12.

A well gotten up handy volume, with an occasional typographical error, showing more hurried proofreading than is usual

with this firm. In writing of variola our author condemns prophylactic vaccination, holding to the motto "Prophylaxis through health and not through the propagation of disease." He justly says that "Homœopathy can be as fully and as ably demonstrated through the law of similia, by the homœopathic physician in the dermatological field, as it has been in the past in any other department of medicine." The consideration of each disease is ended with brief indications of the homœopathic remedies or only their names, his main reliance in treatment being constitutional medication. The only local measures he ever uses are heat and sweet or pure oil as a lubricant. The latter part of the book is a good materia medica, with the captions Objective, Subjective, Aggravation, Amelioration, Temperament. There are six and a half pages of double-column index of diseases of the skin and four pages of similar, but more condensed Therapeutic Index. A book worth having and using.

J. L. M.

THE THERAPEUTICS OF FEVERS, CONTINUED, BILIOUS, INTERMITTENT, MALARIAL, REMITTENT, PERNICIOUS, TYPHOID, SEPTIC, YELLOW, ZYMOTIC, etc. By H. C. ALLEN, M. D., Professor of Materia Medica in Hering Medical College, Chicago. Boericke & Tafel, Philadelphia, 1902. Pp. 542. Price, cloth, $4.00 net; by mail, $4.25.

A classic that no one who treats fever can afford to be without; the long-needed amplification of this author's invaluable book on the treatment of Intermittent Fever.

The clear-cut, well-arranged indications for the numerous remedies are followed by 158 pages of a well arranged and indexed complete repertory and two and a half pages of index to the book generally. "It is the experience of the author that if the remedy be selected from the totality of the objective, subjective, and miasmatic symptoms [with a careful study of the family history], the patient may be cured in any stage of the fever. It is not necessary for a typhoid, or any other fever, to 'run its course.'" The object of the book is to deal with therapeutic facts, not with speculative theories. "The search after a hypothetical cause, and the adoption of a treatment based upon its supposed discovery, has been the fatal Scylla upon which has stranded many a success." The typography, binding, and paper are first-class.

J. L. M.

A Guide to the Microscopic Examination of the Eye. By Professor R. Greeff, Surgeon to the Ophthalmic Department of the Royal Charité Hospital, Berlin. Translated from the second German edition by Hugh Walker, M. A., M. B., C. M., Assistant Surgeon and Pathologist to the Ophthalmic Department of the Glasgow Royal Infirmary. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, 1902. "Printed in England" by The Aberdeen University Press, Limited. Pp. 171. $1.25.

For the laboratory of the specialist this brief work will be especially valuable on account of its accurate and concise description of the technique of microscopical examination. It can prove of value only to the practitioner whose leisure and inclination lead him to laboratory pursuits, as it is essentially such a book. As the author states, more of such investigation by the ophthalmologists would add greatly to the general fund of medical knowledge, and this little book may prove the open sesame to important discoveries in the field of medicine. E. R. F.

Ophthalmic Myology, a Systematic Treatise on the Ocular Muscles. By G. C. Savage, M. D., Professor of Ophthalmology in the Medical Department of Vanderbilt University; Author of "New Truths in Ophthalmology"; Ex-President of the Nashville Academy of Medicine; Ex-President of the Tennessee State Medical Society. 61 illustrative cuts and 6 plates. Published by the Author, 139 North Spruce Street, Nashville, Tenn. Printed by the Gospel Advocate Publishing Co., 1902. Pp. 589.

A clearly written original book, full of suggestions and worthy of careful reading. Our author does not hesitate to differ from Helmholtz and other authorities, but gives his reasons. He claims that all visual lines of direction are radii of retinal curvature prolonged—in other words, that they intersect at a point which is both the center of rotation and of retinal curvature, and not at Helmholtz's nodal point. He repudiates Listing's plane and says that the axis of rotation always lies in the equatorial plane of the eye. "The vertical axes of the eyes always remain parallel to each other and to the meridian plane of the head." In testing for orthophoria he condemns the Maddox rod because part of its streak of light will fall on the field of binocular fusion; hence a greater or less effort at fusion will be made. The normal field of fusion, measured by a prism in front of the eye,

is : nasal limit 8°, temporal 25°, upper 3°, lower 3°; its importance in the study of heterophoria is not sufficiently recognized. A knowledge of the fusion power and of the verting power of a muscle is indispensable in the formation of a judgment how to operate for heterophoria. Asthenic orthophoria according to the diplopia tests may be associated with insufficient verting or duction power; his treatment for this is the "ceiling to floor and wall to wall" exercise—a simple exercise, but described at too great length for transcription here. The diagnosis between sthenic and asthenic orthophoria should always be made. In terminology Professor Savage prefers cyclophoria to Maddox's plus and minus torsion or Stevens' declination, and cataphoria for downward heterophoria, saying "double cataphoria," or hyperphoria, instead of Stevens' anaphoria and kataphoria, as less liable to cause confusion. So duction, whether sub-, super-, ab-, or ad-, should apply only to the power of overcoming prisms, while -version describes the power of turning the eye in a given direction. "The heterophoria that is purely innervational should be designated by the prefix pseudo-, as distinguished from intrinsic; of the latter variety there are two kinds, sthenic and asthenic."

J. L. M.

Saunders' Medical Hand-Atlases. Atlas and Epitome of Otology. By Gustav Bruhl, M. D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen Smith, M. D., Clinical Professor of Otology, Jefferson Medical College, Philadelphia. With 244 colored figures on 39 lithographic plates, 99 text illustrations, and 292 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $3.00 net.

By far the best thing of the kind we have seen. Of value to the specialist in refreshing his memory of normal and pathological regional anatomy and histology by both text and illustration; it is invaluable for the student and general practitioner. The complete epitome is concise and well-arranged, supplemented by three pages of Medical Formulary and nine of a well-arranged index. The paper, binding, and printing are excellent; the colors of the plates good, perhaps a trifle high in key.

J. L. M.

VOL. XIV. JULY, 1902. No. 4.

THE JOURNAL OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

EDITOR,
JOHN L. MOFFAT, M. D.

ASSOCIATE EDITOR,
A. W. PALMER, M. D.

EDITORIAL.

THE TEST PROVING.

IN another column of this issue in the report of the Amer. Hom. O. O. and L. Society will be found a very concise extract from Dr. Bellows' very thorough report of the Committee on Test Proving of that Society, which was appointed last year at Richfield Springs.

In his report there are two points to which we would like to call attention—first the exact and scientific manner in which these provings are being made. Each class of provers, as well as special examiners in the different cities, are under the general guidance or supervision of a Director. These special examiners—*e. g.*, oculists, aurists, laryngologists, urinary analysts, etc.—make examinations in their special departments, and it has been shown by the experience of this first year's trial of this plan that several symptoms of the drug proven have been observed in this way which it would have been absolutely impossible to obtain in any other manner.

Right on this line we would emphasize the opportunity offered, in the immediate future, of studying the effects of drugs on the body tissues by the microscope and microphotography.

These advanced strides in testing the action of drugs, accurately recording the objective symptoms by means of all the modern instruments of precision, and observing

the tissue changes in healthy animals, will disarm the old criticism that Homœopathy relied too much on variably described subjective symptoms.

And in so adding many unmistakable objective symptoms and culling out some chaff that has inadvertently crept into our materia medica, it will place our materia medica on a firm foundation which must command the recognition of all advanced thoughtful physicians.

Second. We notice that there were only twenty-five successful test provings made out of seventy which were commenced. Of the reasons for these failures given by Dr. Bellows we will note but two, as some of us may assist in setting them aside. Some of the provers were disheartened in their work and discontinued it on account of the time wasted in waiting for examinations by special examiners. This may be obviated by the examiner making appointments with prover, which will very little inconvenience the examiner, but would greatly facilitate this valuable work.

Furthermore, the General Director noticed practically what he had surmised before commencing his work, that provers who received some compensation, however comparatively small it might be, for the services rendered felt a certain obligation to carry out their work to a more thorough conclusion—it almost seemed like a slight contract. This by the first year's experience being proved a fact, how can we assist this scientific advancement better than by interesting our philanthopic patients and friends in a substantial manner in the indefatigable work of this Committee?

Subscriptions for this purpose may be sent to Editors of this JOURNAL or direct to Howard P. Bellows, M. D., General Director of the Test Proving Committee, 220 Clarendon Street, Boston, Mass., by whom receipt will be acknowledged and the amount forwarded to the Central Committee or the State Committees, as their needs seem to demand.

A. W. P.

ADJUVANTS TO THE DRUG TREATMENT OF DISEASES OF THE EYE.*

CHARLES DEADY, M. D.,

New York.

WHILE the accurate prescription of the indicated drug must ever occupy a leading place in the treatment of disease, experience soon teaches the physician that, if he would obtain the best possible results, something beyond this is requisite, and the man who, in addition to a thorough knowledge of materia medica brings to the aid of his patient the beneficial effects to be derived from proper hygienic surroundings, appropriate diet, and the various local measures suggested by careful observation, will be more successful than he who relies upon drugs alone.

To the practitioner who is familiar with the prompt results frequently obtained by the correctly prescribed homœopathic remedy it may be at times surprising to note the good work accomplished by some of our old-school brethren in local affections with few drugs, and these usually of general rather than specific action on the organism. I have at times observed some of the best of these gentlemen in their daily routine and have noticed that, although they might place little reliance on internal medication, they, or at least the most successful of them, were very particular respecting local and hygienic measures, which some of us, with our copious and specialized materia medica, are at times too prone to neglect.

To the novice, it may seem unnecessary to require a

* Read to the King's County Homœopathic Medical Society, April.

patient to keep his *bed* because he happens to be suffering from a disease of the eye; later on, he will realize that this simple means may be of great value in the treatment of even apparently trifling cases.

One of three conditions is usually present when confinement to the bed is advisable. There may be fever and general malaise, as is common to a limited extent in many of the acute inflammatory affections; there may be pain sufficient to worry the patient and keep his general condition below par; or the ocular disease may be the result of a worn-out and debilitated condition of the system. An excellent example of the last is the asthenic ulcer of the cornea, occurring in particular in old and decrepit men, which rapidly becomes a slough unless suitable treatment is at once instituted. Under any of the above circumstances rest in bed, together with other local measures, will frequently do wonders for the patient, even without internal medication.

It is often quite as important to know when to allow the patient to leave his bed as it is to put him in it. As the change from activity to rest is beneficial at first, so later on in the case, when the patient is tired of inaction and his recuperative forces seem to lag, a fresh impetus toward recovery may be given by reversing the process and getting him up again.

In the majority of inflammatory ocular diseases a properly applied *bandage* is often of the greatest assistance. The object should always be not to make pressure on the eye, but to steady it and to support the closed lid while protecting the diseased organ from light. It requires a certain effort on the part of the patient to keep the eyes closed while awake, and when this is necessary for a considerable time it is wearing on the nervous system. After cataract operations where I simply closed the eyes by a strip of plaster, I have had patients complain of this lack of support for the lids, and have substituted a light pad of cotton strapped on with adhesive plaster for this reason, although it is my experience that a somewhat quicker

recovery is made in these cases when the eye is not rendered sensitive to light by being covered by a bandage.

In many cases it is not sufficient to bandage the diseased eye only; sometimes the motions of the free eye or the effects of light upon it are sufficient to cause much irritation of its diseased fellow, and we may be obliged to close a perfectly well eye in order to protect its mate.

In one class of cases we cover only the well eye. I refer to the contagious diseases of the conjunctiva, in which the well eye is protected from contagion by covering it with a watch crystal or similar contrivance, carefully strapped on with adhesive plaster, thus combining useful vision with absolute isolation.

In cases of corneal affections among out-patients where a bandage has been omitted either because it was considered unnecessary, or for reasons of cleanliness, I have often seen improvement cease when the treatment in all other respects seemed entirely correct; on applying a bandage the case would promptly recover, under precisely the same remedial measures.

Bandaging is, however, contra-indicated where any amount of discharge of mucus or pus is present. By confining the discharge irritation is set up and the case is aggravated; even serious ulceration of the cornea may result from improper handling in this respect.

In sthenic inflammations of the eye, as in those of other parts of the body, the *diet* should usually be light. Many of these patients have little or no appetite, because of pain or fever, but even where this is not the case we must be careful not to overdo the feeding, because of the tendency to constipation. When such cases come to a standstill and apparently well-indicated remedies fail, if the bowels are found to be clogged, a bottle of citrate of magnesia or some more active purgative will often be the key to the situation and smooth out all difficulties. It is my habit to hold the diet low as long as fever exists, or until the patient is very hungry for solid food.

In asthenic cases, however, one of the prime conditions

of treatment is to build the patient up by every possible means. In the sloughing ulcer of the cornea of the aged, mentioned above for example, the feeding should be forced. If the stomach will stand it, a glass of milk with white of egg and a tablespoonful of good whisky should be given three times a day, in addition to the meals. Bovinine, maltine, liquid peptonoids and other foods should be given as often as they can be taken without inducing dyspeptic symptoms—I have a number of times obtained excellent results by feeding the ulcer itself, using pure beef juice or bovinine.

In all diseases where conjunctival discharge is present *cleanliness* is of the first importance. In purulent, croupous, and diphtheritic conjunctivitis it is absolutely imperative, and the degree of its observance will often tell the story of success or failure. In these cases the discharge is profuse and more or less toxic ; if it is allowed to lie in contact with the cornea, the nutrition of which is already below par from choked circulation due to the conjunctival swelling, the delicate epithelium becomes macerated and breaks down, and once deprived of its protective coat the cornea soaks up pus like a sponge, breaks down into a slough, and the eye is lost. Here ordinary cleanliness is not sufficient; the eye must be kept free from pus day and night. If it is necessary to cleanse and disinfect it every fifteen minutes or oftener, it must be done, even if it deprives the patient of sleep for a time. These cases, if properly treated, seldom last long enough to make loss of sleep a serious matter to a patient lying in bed constantly, and the danger to the cornea admits no alternative. In the ordinary varieties of conjunctivitis it is necessary to keep the eyes clean for another reason. If the discharge be allowed to remain the lashes become glued together, causing irritation at the roots of the ciliæ which may later on result in a troublesome attack of inflammation of the edges of the lids, or blepharitis.

Ice affords us most valuable aid in the treatment of many affections. Even in cases of rheumatic iritis, where

heat is usually called for, it has served me well in instances where the latter has failed. In contusions, lacerations, after operation, to prevent reaction in most of the inflammatory diseases, all of the conjunctival affections, in burns, etc., it will usually accomplish all that can be expected of an external application.

I have several times seen sloughing of the cornea after cataract operations prevented by its use, when the site of the incision already began to show the traces of purulency in the grayish line along its edges. With the present means of asepsis sloughing is rare after cataract operations, but if it does occur most vigorous measures are necessary to arrest it, and I know of nothing better than the icebag, used at the earliest possible moment.

In catarrhal, follicular, and granular conjunctivitis, where heat or irritation exists—whether the disease be acute or chronic—the icebag will usually shorten the case considerably, quieting the patient, subduing pain, and stopping the progress of the affection by keeping the vessels contracted and preventing inflammatory action.

In the purulent varieties, before spoken of, cold applications are still more important. Here the utmost efforts must be used to subdue the disease before the cornea is invaded, and all that has been said respecting ordinary conjunctivitis applies with much greater force. The amount of discharge present, however, precludes the use of the icebag, so we substitute for it a cake of ice in a bowl by the bedside, upon which are laid pledgets composed of squares of linen or gauze two and a half inches across and about six squares to each pledget. Several of these are kept upon the ice at once, and they are applied to the eye when cold and changed immediately they become warm. By this means the affected eye is constantly kept in an even state of refrigeration. Experience has proven that this is necessary to obtain the best results. The intermittent use of cold applications is much less effective and sometimes seems even prejudicial. In parenchymatous

keratitis, pannus, and some other affections of the cornea, ice is frequently equally efficacious.

In using ice upon the eye one cardinal principle must be carefully observed; the eye must be closely watched, and at the first sign of breaking down, impaired luster, cold applications must be discontinued. Our effort is to stop the progress of the disease before the nutrition of the cornea is seriously affected; after that condition obtains this means of treatment is worse than useless, as it further prejudices the case by reducing circulation and, consequently, corneal nutrition. It may also be well to state here that in certain cases of injury where the anterior chamber is filled with blood, the icebag, although well indicated for the case as the whole, has a tendency to prevent the rapid absorption of blood from the chamber, and we must then consider whether the general condition of the eye demands ice despite this drawback. As a compromise we sometimes wrap the icebag with several towels until the cold is considerably modified and place it alongside the face and temporal region, the effect being to cool the circulation of the part without undue action upon the eyeball proper.

I am aware that in my advocacy of ice I am in total opposition to many eminent ophthalmologists, who use heat instead. I can only say that after a large hospital experience covering twenty-six years, after trying all things, I consider ice by far the best in the large majority of cases mentioned. It should be understood, however, that the sensations of the patient must be consulted in prescribing either heat or cold. If, after the icebag has been used for a reasonable time, the patient complains that it is disagreeable or that it aggravates the symptoms, its use should not be persisted in. Further, when refrigeration has been agreeable and favorable in its action upon the case, we are informed that it is time to suspend its use by the fact that it becomes either indifferent or disagreeable to the patient.

In the average case of iritis the neuralgia is usually con-

trolled by the warmth of a bandage, together with the indicated local and internal medication. In the severe cases of this disease, however, and especially when the ciliary body becomes involved, we sometimes have excruciating pain which may persist in spite of these measures, and unless relieved speedily the patient becomes exhausted from suffering and loss of sleep, so that the power of reaction becomes seriously impaired. This is the sphere in which *dry heat* is especially indicated, and from its use most excellent results may be expected. In my experience it is best used by having two muslin bags loosely filled with salt, one of which is constantly being heated in an iron vessel on a gas stove while the other is on the head of the patient. By this method the heat is constant and even, and most severe pain is often controlled in a very short time.

At the present time my use of *moist heat* is almost entirely confined to cases where pus is present, and it is generally applied in the shape of a poultice. A flat muslin bag about three inches square is prepared, with an opening left in one corner; this is about half filled with fresh-ground flaxseed, the opening closed and the bag placed in cold water, which is then heated on a gas stove. If placed at once in hot water the contents of the bag dissolve and escape, but by placing it first in cold water the contents swell and close the pores of the bag. By having two or three of these bags they can be changed sufficiently often to preserve a uniform high temperature of the affected part.

In sloughing ulcer of the cornea with pus in the anterior chamber, a condition which, unless speedily arrested, damages the eye beyond repair, the poultice is more constantly favorable in its results than anything else in my knowledge. It is in this condition that the incision of Saemisch is considered to be specially indicated, but I have generally been disappointed by it and much prefer the poultice, which will usually soon cause absorption of the hypopyon (unless the pus has been in the chamber long

enough to become organized) and clear up the cornea—so far as this can be accomplished by any treatment.

In orbital cellulitis and periostitis where pus exists, in abscess of the lachrymal sac, and in panophthalmitis, the poultice will often afford much relief and hasten the period of convalescence.

In hospital practice we find the poultice very useful about the time of the national holiday, when we invariably have a crop of cases due to the use or misuse of gunpowder. These patients come in with the lids, cheeks, and foreheads filled with grains of powder, as well as the cornea. In the latter it is not well to attempt much in the way of removal, because the result is to stain the cornea badly, and as gunpowder is antiseptic there is no great danger in leaving a few grains, more or less. On the skin, however, we obtain excellent results by poulticing the parts, which causes suppuration about the grains and renders them easily removable, besides reducing the pain and swelling.

In certain conditions of the eye *massage* has attracted much attention during the past few years. It is a means which I have long used, and often with great satisfaction. In chalazion it will, if persistently used, often dissipate the tumor. In iritis in which strong adhesions have formed, I have many times succeeded in at least partially breaking them down by its use in conjunction with a strong solution of atropin (often the crude drug) and the internal use of merc. dulc. 1x or 2x (calomel), the latter to induce (if possible) fatty degeneration of the adhesive lymph.

The importance of re-establishing the circulation between the anterior and posterior chambers is so imperative, if we are to preserve the integrity of the eye, that no efforts should be spared to accomplish it, and vigorous massage of the ball, however painful, should be persisted in so long as there is any hope of success.

Massage for Iritis.—In using massage to break down adhesions of the iris to the lens capsule the patient is made to look down, so that the upper part of the sclera

can be manipulated, and the tips of the forefingers of each hand alternate in making firm pressure toward the center of the eyeball. After performing massage for a few moments in this manner, the eye should be turned upward and the same method followed upon the sclera below the cornea. Then each side of the eye is taken in turn, the patient looking in the opposite direction. By this means the fluid contents of the ball are displaced repeatedly, the resulting traction of the iris tending to loosen the adhesions, and a powerful solution of atropin (I often use the crude drug in the eye, if I can be present to watch its effects) having been previously instilled, the pupil dilates wherever the adhesions are torn and so the desired effect is gradually attained after repeated sittings. I have thus obtained results which would be entirely impossible by the ordinary use of mydriatics.

Electricity is too large a subject to be treated in a paper like this, but its importance is so great that its omission would be inexcusable. When intelligently used it is one of the most potent factors in the treatment of disease. By carefully individualizing our cases we may by this means accomplish seeming impossibilities.

To generalize broadly: in acute inflammatory processes use the galvanic current with the positive pole to the eye, the negative to the wrist or hand. In chronic cases, when absorption is desired or it is necessary to stir up the part to induce reparative action, use the galvanic current, the negative pole to the eye.

In conditions where a more tonic action is indicated, the Faradic current will usually accomplish all that is necessary. In all cases apply the current fifteen to twenty minutes, and have it as strong as can be comfortably borne by the subject.

While touching upon electricity, it may be well to speak of the use of the electric cautery as a means of sterilizing and stimulating asthenic ulcers of the cornea. The old method was to scrape the surface of the ulcer with a sharp scalpel or cataract knife, and by removing all necrotic

tissue to give nature a lift, as it were, to save her the time and effort required to cleanse the ulcerated surface ready for healing. By means of the electric cautery this object may be attained more quickly and certainly than formerly, and it is well worth trying in cases where it is indicated.

Burns.—A condition requiring the most careful local treatment is that arising from burns and other destructive processes of the conjunctiva. Of these perhaps the most common is lime-burn, and this is sometimes very serious, as the patients are frequently of the ignorant and careless class, and when lime enters the eye they apply cold water to allay the pain, the result being a severe burn. To these cases must be added those where molten metal is the cause, and the various other accidents which denude the opposing conjunctival surfaces of the eyeball and lid of the epithelial layer and leave raw vascular membranes, which will invariably heal together and bind the lid to the eyeball, unless the most careful and persistent treatment is at once instituted.

The indications are to keep the raw surfaces well oiled and watch them constantly to prevent adhesion. I have found that the oil of sweet almonds (ol. amygd. dulc.) has an excellent effect in this class of cases, it being a thin oil with more power of penetrating than most others. I have it applied freely to the parts every hour or two, depending on the gravity of the case. Iced cloths are used constantly day and night, and twice daily the probe is thoroughly used and all adhesions between the eyeball and lid are broken up. Too much care cannot be used in these cases, as some of them are the most stubborn and intractable conditions which we have to treat, and here the old proverb about the "ounce of prevention" certainly applies in the superlative degree.

110 West Forty-eighth Street.

LOCAL DRUG TREATMENT OF EYE DISEASES.*

H. D. SCHENCK, M. D.,

Brooklyn, N. Y.

AS a preface it is well to state that the present paper only touches upon the main drugs used locally for various therapeutic and mechanical effects upon the eyes and does not pretend to be exhaustive.

Such drugs may be divided into four classes :

1. Anæsthetics.
2. Antiseptics.
3. Drugs that affect principally the iris, { a. Mydriatics, or dilators. b. Myotics, or contractors.
4. Drugs used for their therapeutic effect upon the lids, conjunctiva, cornea and sclera, or the interior of the eyeball.

Of the local *anæsthetics* cocain in a 4 per cent. solution has greatly simplified operations upon the eyes in adults. In some cases sufficient anæsthesia may be produced by a 2 per cent. solution. Dr. Hermann Knapp thinks three instillations of a 4 per cent. solution, five minutes apart, sufficient to produce anæsthesia for an iridectomy or a cataract extraction. A larger dose causes softening of the eyeball and deepening of the anterior chamber. In the hands of the writer and many others eucain B., 2 or 4 per cent. solution, has largely taken the place of cocain for removing foreign bodies from the cornea and even for cataract operations. Holocain hydro-

* Read to the Kings County Homœopathic Medical Society, April.

chlorate is another anæsthetic of quite rapid, but fleeting, action in 1 per cent. solution. These latter, unlike cocain, produce but slight or no dilating effect upon the iris and do not destroy the corneal epithelium as does cocain.

In operations upon the lids anæsthesia by the infiltration of cocain hydrochl. (gr. 1½), morphin sulph. (gr. ⅓), sodium chloride (gr. 3), and water (3½ ozs.) by injection into the skin, and later into the subcutaneous tissues, is effective.

Orthoform is an anæsthetic which is applied in some painful wounds of the eyeball or in severely painful corneal ulcers.

The chief reliance in surgical procedures upon the eyes is for asepsis rather than for an *antiseptic* condition. The principal solutions used for this purpose are a 4 per cent. solution boric acid, which has a low germicidal action, but is widely used to flush out the eyes. Most operators, where an incision of the eyeball is made for any purpose, have the skin about the eyes scrubbed with soap and water, especial attention being paid to the ciliæ. The skin is then treated with corrosive sublimate 1 to 2000, being careful not to get this strong solution on the conjunctiva, which is then flushed with tepid saturated solution of boric acid or a sterile normal salt solution. During this operation all secretions should be pressed out of the lachrymal sac by firm pressure. The lids are then everted and the conjunctiva wiped with a pledget of cotton moistened with sublimate solution 1 to 5000 or 1 to 10,000.

Formaldehyde, in a solution of 1 to 2000 or 5000, has had limited use as a germicide, but usually proves too irritating in a solution strong enough to have much action upon germs found on the conjunctiva. A few operators use a 10 per cent. solution of cyanide of mercury for irrigating the conjunctiva before operation.

It may be mentioned in passing that the normal conjunctiva contains few bacteria, and injection of them into the eyes does not in the healthy prove deleterious, probably on account of the bactericidal effect of the tears. It has been shown that wounds have less tendency to infection when

the tears flow freely and through a healthy duct into the nose, carrying away all infecting bacteria. All the cocci of pus are found in infected eyes, and it is utterly impossible to get the conjunctiva even approximately germ free, as numerous experiments have shown.

Of all the drugs used locally in the eyes none have a more important sphere, and in some diseases an action that cannot be replaced, than the *mydriatics* and myotics.

Of the former the one of most use as a therapeutic agent, where prolonged and continuous action is needed, is sulphate of atropin. It is commonly used in a 10 per cent. solution, although in children ½ per cent. is used if dilatation of pupil without much effect upon the ciliary muscle is wanted. In old people and susceptible subjects it may produce dryness of fauces, flushing of face, and even the delirium characteristic of belladonna, and must not be used in these cases. Another disadvantage is its tendency to produce conjunctivitis, if its use is prolonged. Some oculists use the salicylate as more stable than the sulphate. Its antidotes are emetics, pilocarpin, muscarin nitrate, or morphin hypodermatically.

Hydrobromate of homatropin is a mydriatic of much less continued action than atropin. A 1 per cent. solution will produce dilatation within one hour and its effects pass off in twenty-four hours, whereas the effect of atropin lasts from eight to fifteen days. It rarely causes any constitutional effects and is very useful in dilating the pupil for an examination of the fundus or lens.

Where atropin cannot be borne, duboisin sulphate in a solution of 2 grains to the ounce will often act very promptly and satisfactorily in dilating the pupil and producing temporary mydriasis. Its effects pass away much quicker than those of atropin and it must therefore be used oftener, but care must be exercised in looking for general disturbances.

Hyoscyamin and hyoscin, with which it is isomeric, act very energetically and promptly upon the accommodation, and one drop of a solution 1 to 300 will maintain paralysis

from seventy-five to one hundred hours. They are very apt to produce constitutional effects, however.

The only other mydriatic to be mentioned is scopolamin, which Merck considers to be identical with hyoscin. The hydrobromate is used in solution of ¼ to ½ per cent.; one drop produces paralysis of the accommodation and dilatation of the pupil in from thirty to sixty minutes. It is quite apt to produce vertigo, delirium, and other constitutional disturbances.

The *myotics* narrow the pupil and, if used in sufficient strength, produce spasm of the ciliary muscle. They act more promptly and energetically upon the pupil than upon the accommodation, as do the mydriatics. The most powerful myotics are derived from physostigma venenosum, of which eserin is the most commonly used alkaloid in a ½ to 1 per cent. solution of the sulphate, although the salicylate is said to be less irritating. Eserin in its weaker solutions often causes some smarting and pain for a few moments after instillation, and may produce headache and nausea; pilocarpin can then be usually substituted with good effect. This is an alkaloid of jaborandi and best used in the form of hydrochlorate; its action is more ephemeral than that of eserin, and it can be used in a 2 per cent. or a 4 per cent. solution without constitutional effects.

The myotics counteract the action of the mydriatics and are sometimes used to annul their effects. Their greatest use, however, is in diminishing the tension in glaucoma. It must be borne in mind that atropin or any other mydriatic may induce an attack of glaucoma in elderly persons, and no mydriatic should be used until the tension is accurately determined in those advanced in years.

In the *last class* under our classification the drugs are used more for their palliative or curative effects than their mechanical or other properties. The chief tissues upon which these drugs may be used with advantage are the lids, conjunctiva, and cornea.

In blepharitis where the thickened, scaly condition of the borders of the lids needs local attention, in connection

with general attention to the diet, habits, and refraction, vaseline may often be used in very small quantities at night, rubbed into the ciliæ after all scales have been washed away. In chronic cases of severe inflammation the yellow oxide of mercury, combined with vaseline in the proportion of one dram to the ounce, is quite useful. In others, where graphites is indicated internally, it may be used externally in an ointment with the same proportion of vaseline or lanoline as the base.

In the contusion of the lids known as black eye, arnica tincture, 10 or 20 drops to the ounce, or ledum palustre in the same strength, will be useful in connection with cold application. Calendula should not be forgotten in wounds of the lids.

In no other eye diseases are external applications so universally used as in conjunctivitis. One that is known to the laity, as well as to the profession, as a very efficient adjuvant in this disease is borax gr. xx, to camphor water ℥ iij. This is a very good wash in mild cases and even in some cases of muscular strain.

Sulphate of zinc., grs. ij, sodium chloride grs. iv, and water i ℥ make an excellent collyrium when a mild astringent is needed. Nitrate of silver, in varying strengths of 1 to 10 grains to the ounce, is sometimes useful in ophthalmia neonatorum, but this as well as the compounds of alumen and copper formerly so much used are replaced by protargol in 1 per cent. to 5 per cent. solution, or one of the other silver derivatives.

In chronic conjunctivitis or trachoma, a condition not often seen of late years, iodide of silver, made from solutions of nitrate of silver with potassium iodide and adding glycerin and water, is a very useful preparation.

In ulcers of the cornea which are apt to be very intractable it is often advisable to use bovinine, protonuclein, or some other nourishing application locally, while the general system is built up by a generous, but carefully selected, diet. Lead, zinc, and copper preparations are not indicated in ulcers of the cornea.

241 McDonough Street.

INTERNAL REMEDIES FOR DISEASES OF THE EYE.*

ALTON G. WARNER, M. D.,

Brooklyn, N. Y.

THE Chairman has asked me to say something upon the use of internal remedies in diseases of the eye. To even mention all the remedies that may be useful would require more time than would belong to me and would be unprofitable in the end. I can mention only a few, and limit the field of consideration to that of inflammatory diseases, and to the more acute stage of those. The remedies which I mention are those which I find I use more frequently, though in a given case they might be all out of place and others required. I wish to distinctly avoid saying that pulsatilla is a good remedy for conjunctivitis or that mercurius corrosivus is the great remedy in iritis, for I do not think that is a correct way to prescribe for eye troubles or for any others.

Aconite cures an acute inflammation when the eyes are red and burning, very painful and dry. The case that is benefited by ice is benefited by aconite.

Apis is indicated when there is œdematous swelling and the pain is stinging and shooting, with drowsiness and absence of thirst. Afternoon aggravation.

Argentum nitricum—Great swelling and infiltration of tissue, intense chemosis, profuse purulent discharge.

Arsenicum—Burning and stinging pain, paroxysmal in character, worse after midnight, with extreme prostration.

* Read to the Kings County Homœopathic Medical Society, April.

Belladonna—Dryness and stiffness, throbbing pain, great engorgement of the blood vessels.

Bryonia—Sharp severe pain aggravated by motion.

Euphrasia—Redness and swelling, with profuse acrid discharge which excoriates.

Hepar—Severe pain with photophobia and lachrymation, great sensitiveness to touch, better from heat.

Mercurius cor.—Pain and burning, tearing pain in the bone above the eye pain as if the eye would be forced out; photophobia, profuse burning and excoriating lachrymation; pain worse at night.

Nux vomica—The morning aggravation is the most important symptom.

Pulsatilla is the remedy for many forms of eye trouble, being especially indicated for blond individuals of mild disposition and for the negro race. The discharges are usually thick and bland, and the pain is better in the open air.

Rhus tox.—Redness and œdema. Spasmodic closure of the lids so that force is required to open them, when a gush of tears takes place; patient is restless and thirsty, worse from cold and dampness.

Sulphur—Particularly indicated for scrofulous persons. Burning and sticking pain, as if from a splinter. Pain shooting from the eye back into the head. The aggravation is from 1 to 3 A. M. and from the use of water.

19 Schermerhorn Steet.

Discussion.

AUGUST VON DER LUHE: I have had good results from fer. phos. in conjunctivitis where acon. would seem indicated.

R. I. LLOYD: Caution must be exercised in sending old men to bed. I remember one or two painful experiences in hospital, the patients after cataract operation becoming suddenly insane, endangering the eye. In the line of remedies, I have seen one excellent result following prescription of acetic acid in croupous conjunctivitis.

J. L. CARDOZO: Jaborandi 12^{x} has produced good results in spasm of the ciliary muscle. Arsenicum when the whole conjunctiva was red like beef; pulsatilla, if there was a bland discharge.

W. S. SEARLE: I recommend white bean water for punctured wounds. Have never had the opportunity to use it in eye cases, but have had excellent results in punctured wounds in other parts.

H. D. SCHENCK: The homœopathist gets his results because he uses homœopathy plus all other methods. I have seen excellent results from gelsemium alone in glaucoma.

JOHN L. MOFFAT: Why should we homœopathists send our eye cases to a so-called homœopathic specialist whose practice does not differ from that of the old-school oculists? There are other methods beside homœopathy that come into play when a remedy is to be selected. Massage is very valuable, especially in adhesions of the iris. I have had a good result from pneumo-massage for irregular astigmia resulting from a bad case of interstitial keratitis. There were facets and cloudiness, but the cornea is clearing and irregularity is lessening. I had one case of iritis with adhesions treated with the X-ray. The ray was tolerated well, two feet away for four to eight minutes at a time. Pain was relieved at once. Old firm adhesions in the other eye were not softened. Holocain, one per cent., is rapid in effect; fatal doses in animals act like strychnia. Scopolamin should not be mistaken for hyoscin. All zinc and lead prescriptions should be marked "Not to be filled again." Phaseolus has given good result in a tack wound of the knee; binding on a soaked white bean and bathing with bean water.

DR. CARDOZO: In a case of splinter in the foot, should we ask for the time of aggravation? No; would remove the splinter, of course. If the wound does not heal there is something wrong with the patient's constitution, and here is where the remedy acts. The combination of the internal and external remedy is desirable.

DR. FREEMAN, citing a case of episcleritis: A lady had been under old-school treatment two years. I looked up the remedy

and gave her bovista, a remedy which I had never prescribed before, and relieved the intense photophobia at once.

E. CHAPIN: What would you use as an antidote for cocain? A dentist told me he was not afraid of cocain poisoning if he first gave three to five drops of tinct. violets (McKesson & Robbins).

DR. DEADY: We must be on our guard against hypostatic pneumonia in old people. I believe that simple glaucoma is not benefited by iridectomy. The homœopathic remedy will do the work if we can only get the indications. Macrotin relieved a case of iritis of long standing. Atropin does badly in infants. Hyoscin will drop anybody. Duboisin is bad in old folks. Personally, I like scopolamin one-half per cent. The best thing for trachoma is mercurius corrosivus (bichloride) 1 to 1000 scrubbed in under the influence of cocain. The quickest cure I have ever seen of trachoma was by apis alone; no adjuvant treatment. The homœopathic remedy will cure, if you can only get the symptoms.

SYPHILITIC IRITIS—BELATED CASES.*

JAS. A. CAMPBELL, M. D.,

St. Louis.

WHEN we consider the destructive tendencies of unrecognized specific iritis, which permits firm and permanent adhesions to form because of neglect or oversight on the part of the physician in attendance, an additional word on this much-discussed topic is not out of place.

The diagnosis of specific iritis is a very simple matter when gumma nodules appear associated with a recent specific history. But because this disease is generally found associated with secondary papillary or roseolar eruption, the profession, at times, is inclined to forget that certain forms of it may appear months, or even years, after the original infection. It is to these belated cases I wish to call attention.

As mentioned above, in the ordinary case, with its history and typical symptoms before us, the diagnosis is quite evident. In the belated forms there are frequently absolutely no characteristic marks present to indicate a specific origin; there has been no history of constitutional disease for months, perhaps years, and hence it does not occur to the patient to connect the two as cause and effect. The eye becomes sensitive to light, the eyeballs are congested; lachrymation follows, associated with more or less pain. But these combinations of symptoms are quite like the ordinary conjunctivitis, and are usually so accepted by both the physician and the patient, attributing the attack to a

* Read to the Missouri Institute of Homœopathy.

cold which has settled in the eye. The treatment given, under these circumstances, is generally some local eye water and no internal medicine. This does not help the case in the least; the inflammation, lachrymation, and pain usually go on, increasing gradually, sometimes for weeks, until their obstinacy begins to awaken doubts as to his diagnosis on the part of the physician, when experiment begins to follow routine treatment, and various forms of local eye waters are tried, with little or no avail. All this time plastic lymph is thrown out, forming adhesions between the iris and lens or posterior synechiæ. In many of these cases the persistent use of a mydriatic may break away the part or even all of these adhesions, although often but little effect can be obtained after the adhesion is old and firm.

There is a form of irido-cyclitis coming on years after the original venereal contamination, which may likewise involve the deeper eye tissues. This is a masked type and is insidious in approach, as well as uncertain in the appearance of its symptoms.

Inherited syphilis may likewise affect the iris; this is usually associated with a parenchymatous keratitis.

In view of the above facts and the obscurity attached to them, and from the additional fact that it has been estimated that about fifty per cent. of all cases of iritis have a specific origin, the importance of a careful search for the prime cause of every case of iritis must be apparent.

To the oculist this is nothing new, for experience and observation have taught the necessity of alertness.

It may be asked is this situation seen sufficiently often to justify the urgency and importance of the above statements. During the month of February, this year, I had under treatment six cases of iritis, five of them were specific, four of which had been treated for weeks, under a mistaken diagnosis, as conjunctivitis with neuralgia. Does the subject need further argument?

1729 Washington Avenue.

SYMPOSIUM.

Is Tonsilectomy Preferable to Tonsilotomy? When, Why, and How Do You Operate?

THOMAS M. STEWART (Cincinnati): When perform tonsilotomy? In hypertrophied tonsils.

Why? Tissue soft and subsequently contracts.

How perform tonsilotomy? Use Mackenzie's tonsilotome; free the adhesions first; press, or with forceps draw, tonsils into ring of instrument. This allows a section in the normal tissue, hence better contraction of blood vessels.

When perform tonsilectomy? In hyperplastic tonsils and malignant disease of tonsils. Why select tonsilectomy? Tissues are dense and do not contract.

How perform tonsilectomy? Free the adhesions, use wire snare (Peters' preferred), curette tonsil bed with finger.

GEORGE B. RICE (Boston): In my opinion, tonsilectomy is preferable to tonsilotomy in all cases requiring operative treatment, for the reason that diseased tonsils have lost whatever function they may have originally had, either by tissue changes resulting from a strumous diathesis or from repeated inflammatory attacks.

I operate whenever I am assured that these tissue changes have taken place, for I believe the mass of lymphoid, fibrous, and connective tissue to be a constant menace to health. In children, I perform the operation with the patient under the influence of a general anæsthetic.

The tonsillar tissue is separated from the faucial pillars, a guillotine pressed firmly over the growth; an assistant pressing against the outside under the angle of the jaw, and the mass excised.

I then separate any adhesions between the faucial pillars

which may now be discovered, and remove any remaining tissue discoverable with guillotine, scissors, or curette. In adults I dissect out the tonsil with scissors and forceps; frequently finishing with a tonsillar punch.

J. N. Anderson (Toronto): My method of operation on the tonsil varies with the conditions I find. Where I find the hard, fibrous variety I prefer Sloan's snare, and have found it to be all that can be desired in larger children and adults. After separating any adhesions there may be, I introduce my finger with the snare and see that the wire encircles the gland as close to the pillars as possible. In smaller children I prefer the tonsilotome for the reason that I have found it difficult to place the wire around the tonsil, except where the tonsil is very large, because of the lack of space and the softness and yielding condition of the gland. The tonsilotome being rigid, and large enough to encircle the tonsil, and the latter being supported from the outside, the operation is easy and the results satisfactory.

When the tonsil is of the long and narrow variety, not projecting beyond the pillars sufficiently to allow the use of the snare or tonsilotome, I use the linear cauterization and Myles' instrument. In every operation for ablation of the tonsil, not only should all adhesions be relieved as thoroughly as possible, but also the whole gland should be removed, not merely sliced off; especially so in children and young persons.

As to when I operate, I should say as early as possible; for usually with these cases are found enlarged pharyngeal tonsils and obstructions in the nose, needing relief as early as constitutional conditions will allow. When the respiratory tract is free from obstruction, I do not consider my patient cured until I have corrected all abnormal conditions arising from inheritance or faulty habits of living.

H. W. Hoyt (Rochester): In young children whose tonsils project into the pharynx, I prefer tonsilotomy. I use a tonsilotome, and often draw the tonsil out into the ring of the tonsilotome with a tenaculum or forceps. If the tonsil is broad at the base and partially buried by the faucial pillars, I break up the adhesions and remove with a hawk-bill punch forceps. In adults I try to remove all of the diseased tonsil by means of the snare or punch forceps spoken of.

In cases of repeated attacks of tonsilitis with small tonsil, I advise as complete removal of the tonsils as possible.

I have had very little success in permanently reducing hypertrophied tonsils with internal remedies.

JOHN C. LESTER (Brooklyn): For large, hypertrophied tonsils, in my judgment, the operation is amputation. For cryptic tonsilitis, or for those cases where there is mycosis of tonsils and pharynx, I am in favor of exsection. By preference I use the Myles tonsil punch, or curved scissors made for the purpose. I believe in strict surgical (operative) procedure in these cases, followed by suitable local treatment of the cleansing, antiseptic order. I have no age limit for tonsilotomy. I employ my modification of the McKenzie tonsilotome, and in case of hæmorrhage my tonsil vulsellum forceps, which can be retained *in situ* for an indefinite period. In children, as adenoids are usually present, I invariably operate under primary general anæsthesia and in the recumbent position.

All tonsilar tissue is superfluous and capable of mischief; consequently I favor radical measures in its management. My results have been more than satisfactory, both to my patients and myself.

EDWIN PYNCHON (Chicago): Tonsilectomy, when possible, should always be preferable to tonsilotomy, though, for patent reasons, with children and the extremely timid the quicker done and more easily executed operation of tonsilotomy is selected. For the simple removal of the projecting portion of the enlarged tonsils of childhood, which are chiefly objectionable as obstructions, owing to the space they occupy, the operation of tonsilotomy is quite efficient, to the extent of overcoming the obstruction to both respiration and vocalization.

Again, in many cases wherein the patient is subject to recurrent attacks of either follicular tonsilitis or quinsy, the tendency to these acute manifestations is abated by an amputation of the projecting portion of the tonsils, whereby the more or less constricted openings of the follicles are cut off so as to improve the drainage therefrom, and thus diminish the chances of future retention of tonsilar secretions, any retention of which marks the onset of an acute inflammation.

In either case the diseased base remains as a pathologic point, from which is constantly exuding a diseased secretion which is

deleterious to the economy. In many other cases a non-projecting or degenerate tonsil will be found, but often so submerged as to escape the eye during a hasty examination; though, as with the stump after a tonsilotomy, it is often the unrecognized cause of a granular pharyngitis, a post-nasal or tubal catarrh, a recurrent laryngitis, or a catarrhal condition of either the pulmonary or gastro-intestinal tracts.

In all such tonsilar conditions, chiefly owing to the harmful secretion therefrom, a thorough tonsilectomy is to be advised, and I have found that this is best obtained by the process of "electro-cautery dissection," whereby the entire tonsil is completely removed, so as to insure a permanent cure of all previous manifestations traceable to the diseased tonsils. The results have been invariably beneficial, giving a pink fauces, the tonsilar region of which is ever afterward free from sensation of irritation. Furthermore, there is generally noted an improvement in the general health, an abatement of ear-trouble when present, and, with singers, an improvement in the voice with some increase of range in the high register.

Irving Townsend: If we differentiate the terms tonsilectomy and tonsilotomy as implying *complete* and *partial* extirpation of the faucial tonsils, it furnishes a definite basis for contrasting the various methods of operating for the removal of these structures. In my own experience, I have seldom found it possible to extirpate a tonsil completely, and still less frequently has it seemed to me necessary or advisable to do so. While I advocate and practice the excision of all the lymphoid tissue which can be removed by ordinary means, I believe that the importance of destroying the last vestige of these structures has been greatly exaggerated. Tonsils deeply imbedded behind the faucial pillars, and hypertrophied vertically rather than toward the median line, require the use of the tonsil punch, after the protruding portions have been removed by the tonsilotome.

I have used the cautery and cold wire snare a few times; the former where hæmorrhage was expected, and the latter for the purpose of enucleation. In certain cases the platinum wire snare is no doubt safer than a cutting instrument, but enucleation by means of the cold wire has been, in my hands, less satisfactory than the tonsilotome.

The assertion has been made that complete extirpation of the

tonsils allows the faucial pillars to collapse, so as to form a cavity in which food and other foreign material may accumulate. I have not observed this condition, but am prepared to believe that it may exist.

Between the ultra-conservatism of a few years ago, and the somewhat radical ideas of the present day, the best methods will doubtless be found, and I believe that the intelligent use of homœopathic remedies, combined with proper surgical procedures when indicated, will accomplish the most satisfactory results. Operations must be adapted to individual cases, and a choice of methods must depend upon the conditions present in a given case. "If thine eye offend thee, pluck it out," is another way of saying that when an hypertrophied or diseased tissue causes serious mechanical trouble it should be excised.

The time for an operation is as soon as the child becomes a "mouth-breather," whether it be at the age of three months or ten years, if the lymphoid hypertrophy is the cause of the nasal obstruction. Personally, I do not like to operate on infants, and sometimes delay this treatment until the child is threatened with ear trouble or demands relief for other reasons.

Is Iridectomy Advisable for Simple (Chronic) Glaucoma?

T. M. STEWART: Yes; on account of the rare occurrence of a definite reduction of vision due entirely to the operation. But on account of the equally rare improvement of vision, and the bare possibility of preserving the vision in *statu quo* by operation, we should first direct attention to correcting and controlling our patient's habits, particularly as to the amount and character of food and fluids taken, based on the patient's oxidizing powers. Just as early operation in acute glaucoma is the lesson of experience, so too, early attention to matters of hygiene, diet, and refractive errors is the lesson of experience in the prevention of chronic inflammatory and simple chronic glaucoma.

J. N. ANDERSON: After I have corrected all conditions possible as causative factors in the case, especially constitutional diseases, and eserin has failed, and posterior and anterior sclerotomy have also been performed in vain, then I would perform iridectomy; and not until then, unless the case was urgent on account of the pain and rapid loss of vision.

JOHN C. LESTER: Not as a primary operation. I prefer pilocarpin, watching vision, and waiting for changes in its field.

SOCIETIES.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, 1901 (concluded).

Early Treatment of Mastoiditis.—CHARLES W. RICHARDSON (Washington, D. C.) advocates early and free incision of the m. t. Bed until the temperature has remained normal for two or three days, and all tenderness has disappeared; fluid diet and the bowels kept open. Also frequent gentle irrigation with water at 110° F. To prevent or arrest infection of the mastoid he prefers the ice bag to the coil, as it is more manageable and the temperature is more evenly maintained. When there is more or less tenderness of the mastoid tip there can be no question about the urgent need for the application of cold externally. Even if there is otorrhœa the ice bag should be applied continuously and persistently, as long as there is evidence of improvement. But if no improvement is observed in forty-eight hours after the application of ice, radical intervention is essential. Œdema over the mastoid, or sinking of the posterior superior wall of the auditory canal indicates pus, and demands radical intervention at once. Too much importance should not be given to apparent improvement in the less essential symptoms. The greatest weight should be attached to the lessening of tenderness and improvement in the character of the discharge.

EDWARD B. DENCH approves of gentle inflation with the catheter in the very early stages. He prefers the catheter to the Politzer bag except in very young children, where it is practically impossible to use the catheter. Dry heat is of great value; the best way to spoil a good ear is to poultice it. He is inclined to think that oils do harm by furnishing an excellent nidus for the development of aspergillus, molds, and streptococci. Sometimes the drum should be incised even when there is no effusion; particularly in cases beginning with very acute pain. His experience with wick-drains has not been favorable. Immediately after incising he irrigates with a mild antiseptic, preferably bichloride 1 to 3000 or 5000. He believes in early incision, rest in bed, and the use of cold as a routine treatment; but the case should be under a surgeon's personal observation from its inception. If there are any evidences of mastoid in-

volvement it is dangerous to use cold, for fear of masking the symptoms. If cold does not abort an inflammation within forty-eight hours, it will at best only relieve the symptoms. If the coil is left on longer, the inflammation might be arrested in the superficial cells and yet be progressing in the deeper ones. An exploratory operation on the mastoid in doubtful cases is warranted. It drains posteriorly, diminishes the risk of serious deafness, avoids intracranial complications, and shortens convalescence.

J. F. McKernon (New York): There is no use, of course, in applying the ice coil if pus is already present. The discharge from the external meatus should be repeatedly examined bacteriologically. The time will come when otologists will practice the exploratory mastoid operation advocated by Dr. Dench.

T. P. Berens advocated bed, internal medication, free drainage, and cleanliness. Irrigate with solutions as hot as can be borne. Open the Eustachian tube with adrenalin through the catheter. Heat accomplishes much in the early stages. When there is much pus use hot H_2O_2 and dry cleansing. The effects of extreme cold and extreme heat are practically the same, but ice masks the symptoms and heat does not. In removing the jugular vein one often finds a thin, broad, sterno-mastoid muscle. By prolonging the incision and splitting this muscle the vein can be more easily laid bare. It is customary to split the lateral sinus and pack it with gauze. He splits the whole diseased sinus and a little beyond, and then enucleates the split edges, leaving practically an open wound which can be easily dressed and which cannot possibly contain any pus.

E. E. Holt has some patients recline at an angle of 45° for comfort. Many earaches can be relieved by introducing a piece of cotton moistened with spirits of camphor, and having in its center some red pepper. What has been said by specialists about cold for acute otitis media has done much harm, by encouraging general practitioners to use it indiscriminately. It is often difficult to determine whether a mastoiditis is superficial or deep.

Sargent F. Snow: Nature, in her efforts to ward off extension of inflammation, throws out a protecting wall. If only slight softening of the mastoid be found, it is sufficient to

maintain free drainage and not disturb the walls. Sometimes the posterior superior wall will bulge again after the first incision. Then incise again.

WENDELL C. PHILLIPS: Inflation in acute otitis media endangers infection from the nose or naso-pharynx through the Eustachian tube. We should strictly define the varieties of mastoid disease. No treatment is effective for grip mastoiditis if streptococci are in the pus and there is prolonged tenderness over the antrum with bulging of the attic.

H. L. WAGNER: Almost all cases are a mixed infection, even if at first only a pneumococcic infection. For a pure pneumococcic infection the prognosis is good; if the infection is mixed, and especially if streptococcic, it should be guarded. He does not think that all of these really need operation.

R. C. MYLES: If there is free drainage, an operation is rarely required. The m. t. appears rather peculiar when an incision is required, and one is apt to be misled as to the exact location and extent of the incision. The more extensive the incision the better have been his after-results, other things being equal.

DR. RICHARDSON: He has seen as bad cases of pneumoccocic as of streptococcic infection.

Lithæmic Pharyngitis, by J. A. STUCKY of Lexington, Ky.

The attack causes primarily no lesion. It is sometimes an immediate precursor of articular rheumatism. Overindulgence in eating and drinking is often as much the determining cause as exposure to cold.

The Mechanical Treatment of Nasal Synechia, with Demonstration of an Appliance, by F. H. KOYLE of Hornellsville.

The modeling composition used by dentists in taking impressions for plates is the best material for such a splint; it is absolutely aseptic, light, non-absorbable, and easily molded.

PRICE BROWN: Rubber can be left in any length of time and, being compressible, retains its position better.

DR. KOYLE often introduces this composition into the nose while warm and soft; it can be molded after having been placed in position.

An Interesting Case of Aneurism of the Internal Carotid Artery, by WALTER B. JOHNSON of Paterson, N. J.

March 5, 1900, an Italian boy of five years had an inflamed throat and a swelling in the region of the left tonsil, with the usual symptoms of peritonsilitis. Possibly traumatism might have been inflicted that afternoon by an Italian midwife attempting to rupture the swelling with her finger. That evening Dr. Banta found bleeding from the ear. During a subsequent examination the child struggled violently, and there was a sudden gush of blood from the left ear. There was a tense swelling below the ear, which seemed to be limited by the fossa of the neck. No pulsation or aneurismal bruit could be detected. There was a dusky red, non-pulsating tumor in the left tonsilar region. A diagnosis of dissecting aneurism was made. March 31 the left m. t. had a large perforation, and rather thick serous fluid escaped from the junction of the auditory canal and tympanum. When next seen the statement was made that during an attack of enteritis and fever the tumor had suddenly increased, and the child had become comatose. Another physician had expressed the opinion that the tonsilar swelling was a malignant growth. The general opinion of a number of surgeons who saw the case was that this swelling was not an aneurism. June 13 tracheotomy was done, two exploratory punctures of the tumor made, and the remaining part of the left tonsil removed. The tumor mass was examined by a pathologist who said that it was not carcinomatous or tubercular. The patient improved after this, except two attacks of bronchitis. September 7 there was a sudden and severe nasal hæmorrhage and September 10 a second and fatal one. No autopsy was permitted. Ligation of the carotid had been considered the previous spring, but not attempted because of the general opinion of the consulting surgeons that it was not an aneurism, and because the tumor did not bleed on exploratory puncture.

Subarachnoid Injection of Cocain as a General Anæsthetic for Operations on the Head, REDMOND W. PAYNE of San Francisco.

Rapidity of injection is the chief point. It is made between the third and fourth lumbar vertebræ, the needle pointing upward. The patient first assumes the straight position, the head and upper part of the body being elevated. It is most

important to use a freshly made two per cent. solution of sterilized *crystalline* cocain. Its anæsthetic properties are not in the least affected by exposure to a temperature of 300°F. for twenty minutes. From eighteen to thirty minutes are necessary.

OTTO J. STEIN (Chicago). Eucain [*β*?] is readily sterilized by boiling; four per cent. has produced equally good anæsthesia.

DR. PAYNE: Eucain is not so reliable as cocain.

Papillomatous Growths of the Soft Palate, WILLIAM F. DUDLEY of New York (Brooklyn).

A neoplasm resembling papilloma, on the velum palati of a man aged seventy-one, remarkable for its large size and peculiar odor. The parent mass was $\frac{7}{8}$ inch in diameter and $\frac{3}{16}$ inch high. The surface was coated with soft pulpy detritus and was pearl-white in color. This physical aspect is extremely rare, only two similar papillomatous growths having been reported. The tumors were posterior to the margin of a hard rubber dental plate, which had been worn for twenty years without producing any local inflammation. The patient had smoked twelve cigars daily for twenty years. He had suffered from severe dysphagia, salivation, and loss of sleep, his general health being dangerously impaired. One pathologist pronounced it malignant. The growths were removed with a cold wire snare. The wounds healed rapidly, and there is no evidence of recurrence, after eighteen months.

Variations in the Technique of Septum Operations, STEPHEN H. LUTZ, of New York (Brooklyn).

He uses the breaking forceps first instead of cutting first. Thus cutting will often be obviated unless there are spurs present. He makes splints of dental plate composition, during the operation.

C. W. RICHARDSON commended the author for this practical suggestion.

T. R. CHAMBERS: Practices the Gleason operation; in that no breaking is required.

AMERICAN MEDICAL ASSOCIATION. Fifty-third Annual Session. Saratoga, 1902. SECTION ON LARYNGOLOGY AND OTOLOGY, Tuesday, June 10, 2 P. M.

Conversatism in the Treatment of Acute Mastoiditis, S. F. SNOW, Syracuse.

The author believed in taking a middle ground between those who urge the external operation immediately on all cases showing pain, tenderness, or other evidence of pus in the mastoid, and the ultra-conservative who operate upon nothing. This middle ground is safe and based on well-established principles of drainage and prevention of pus development. The care that these cases usually receive and that which should be insisted upon was contrasted. The non-intermittency of the application of cold or heat for the relief or prevention of inflammation was emphasized.

Conclusions should be based only on this manner of careful treatment. In acute uncomplicated cases, cold applications, if beneficial, can be continued with safety until inflammatory action is gone.

The Treatment of Chronic Otitis Media Suppurativa. D. A. KUYK of Richmond, Va. Was a plea for greater conversatism. The importance of the *proper* method of cleansing the ear at home, the advisability of dry treatment at office, and the proper use of nitrate of silver were dwelt upon. Local treatments should not be continued indefinitely. Surgery has its place, and is proper in selected cases.

The Teeth as Cause of Pathologic Conditions in the Throat, Nose, and Ear. By KATE W. BALDWIN, Philadelphia.

The author showed how difficult dentition is occasionally the cause of otitis, tonsilitis and peritonsilitis, unilateral coryza, and sinusitis ; in difficult dentition she advocated the thorough incision of the gum down to the erupting tooth as a frequent cure for otitis occurring at that period, and cited some cases. In the discussion G. E. Makbury objected to such free or deep incision, but the majority of opinion coincided with the author. R. C. Myles considered hydrogen dioxide locally to the gums far more beneficial than the washes usually advocated by the dentist. Dr. Frey explained that the teeth, while growing within the gum, press upward and downward upon the sensitive nerves

in the tissues surrounding the tooth, irritating them ; therefore incision to tooth is necessary to liberate these nerves from the irritating pressure.

The Diagnosis of Carcinoma of the Larynx. By O. T. FREER, Chicago.

The early symptoms should be more thoroughly and widely studied ; on account of the neglect of this are we so seldom able to make intralaryngeal operations therefor. Occurring six times in males to once in females, carcinoma is most frequently found on the vocal cords, second in vocal bands, and third in ary-epiglottic fold and epiglottis. When in the first two localities, hoarseness is frequently the only symptom noticeable for a long time ; when in the third locality, an otalgia may be the first symptom ; always treat these symptoms with suspicion when intractable. A papillomatous growth may undergo cancerous degeneration, or it may be covered with papillomatous tissue. When located in sinus Morgagni laryngectomy is the only method for positive diagnosis. When fixation of chordæ vocales is the first symptom of subchordal tumor, suspect carcinoma, although it may be syphilitic or tuberculous in nature ; diagnose by previous history, concomitant symptoms, and examination for bacilli. Ulceration seldom appears under a year. If the cancer be intrinsic, the lymphatic involvement is of late development, therefore of little diagnostic value, while if extrinsic it appears earlier. The specimen for microscopic examination should be taken from as near the center as possible, and the section by microtome should be made vertical to plane of surface.

Discussion.

DR. MYLES opposed the idea of taking a specimen for microscopical examination if the patient positively refused operation, because of the great probability of aggravating the disease. He reiterated that the only possibility for cure was in early diagnosis and intralaryngeal operation.

DR. FREER called attention to researches of Frankel and other German authors, which proved that endo-laryngeal operation really does cure cancer.

The Early Appearance, Diagnosis, and Treatment of Tuberculosis of the Upper Air Tract. By WALTER F. CHAPPELL.

The early diagnosis is usually difficult and sometimes almost impossible. It is divisible into three stages: premonitory, tumefactive, and ulcerative. Anæmia of velum palati is frequently misguiding,—the author watched a patient with this for six years without tuberculosis developing. The grayish appearance of the laryngeal mucosa is most diagnostic, while the œdematous swelling of the arytenoid and interaryteroid space comes next. Papillomatous interarytenoid swelling may lead to erroneous diagnosis. The author very strongly advised the necessity of an early urinary examination in all suspected tubercular cases, as evidence of this disease is far more frequently shown in the kidney than is credited by the average practitioner. Lingual fissure is not infrequently found secondary to laryngeal tuberculosis, and perforation of the septum is usually the first symptom in the nares. In the treatment greater individualization was advocated, divided into medical, surgical, and climatic. Adrenalin, locally, in congestive stage is beneficial. Tannic acid and kreosote in tumefactive stage. Drugs administered in benzoinol as a menstruum adhere to the mucous membrane best. A weak solution of nitrate of silver stimulates ulceration to heal. To relieve the pain kreosote or orthoform locally and morphine or codein internally. The author strongly advised against the indiscriminate use of the curette ; curettage should only be performed in quiescent period. Moderate warm, dry climate is best for the majority of cases. A salubrious climate without treatment is better than the very best treatment in poor climate.

Discussion.

EMIL MAYER reported a patient of neurotic temperament and a very bad tubercular history with a lymph node in the nares, microscopical examination of which showed no bacilli. Two months later after a trip to Europe an examination demonstrated bacillus, and in three months he died of tuberculosis. The speaker was averse to the use of cocain because of possible formation of the cocain habit ; and believed orthoform just as good.

Dr. Quinlan said we are apt to consider too lightly the concomitant symptoms—temperature, pulse, respiration, etc., and even the subjective symptoms should not be overlooked. We are sometimes culpable for not taking these into consideration.

Geo. C. Stout believed if we enforced rules in the patient's home similar to those carried out at the different health resorts, we would have similar results. Also that we magnify the effects of the Adirondacks and the like places.

W. S. Anderson advocated the intratracheal injections of solutions of guiacol, menthol, iodoform, etc., in oleum olive as a menstruum ; one to two drams per dose.

Chas. H. Baker said that solution of ichthyol in oil or water would relieve the pain.

Sargent F. Snow considered lactic acid the most satisfactory, but was using less and less local treatment and depending more and more upon the hygienic ; he spoke very highly of the Adirondack atmosphere.

Dr. McDonald of New York considered the peculiar fall in temperature of one degree or more about 6 to 8 a. m. as one of the earliest symptoms, and thought it may almost be placed among the diagnostic ones. Melanæmia, or any lower vital condition, indicated that blood examinations should be studied more in relation to phthisis.

A Case of Laryngectomy. By E. F. Ingalls.

First a case was cited in which there were two cancerous nodules in the anterior third of the right cord; these the writer removed by the intralaryngeal method ; but later the disease extended to the left cord and the false cord became thickened. This appeared suitable for partial laryngo-fissure, and Dr. Christian Fenger commenced such operation; but, on finding the cancerous degeneration had penetrated the laryngeal wall, complete laryngectomy was performed. Death ensued three weeks later. Whenever contemplating an operation on the larynx, it is advisable to prepare for a laryngectomy. All cases of circular and bilateral cancer need total laryngectomy. Dr. Fenger advises tracheotomy before all major operations on the larynx. Between 1851 and 1894 there were ninety-two laryngectomies performed for cancer, with 8.7 per cent. of non-recurrences ; from 1894 to 1898, sixty cases are recorded, with 18 per cent. of cures.

Discussion.

Dr. Freer remarked that partial laryngectomy was a more bloody operation than total.

Dr. Pierce cited the case of a clergyman who had been hoarse six months; examination disclosed a pink nodule, the size of a very small split pea, on the under surface of the right vocal cord. He removed it endo-laryngeally. It immediately assumed a malignant aspect; in five days the appearance of the entire larynx changed. Laryngectomy was advised but refused, and the patient shortly died. He takes phonographic records of the voice before and after all operations, as it better shows the improvement therefrom; in case of malpractice suit, it would refute any misrepresentation.

A Case of Sarcoma of the Maxillary Sinus, Partial Excision of the Upper Jaw. By Joseph F. Gibbs.

At first the sarcoma involved the anterior wall of the antrum and the hard palate. These were removed, with all evidences of the growth, by Dr. Hutchinson; in seventeen days it recurred with renewed virulence, involving the whole superior maxilla, even the orbital plate. Entire extirpation of the superior maxilla, with the enlarged cervical lymphatics, was performed by Dr. Davis, who at the same time ligated the common carotid in order to starve the parts, hoping thereby to prevent recurrence; this hope was fulfilled. Sarcoma in the nose grows slower than elsewhere. The author believes sarcoma of the maxillary sinus not as unusual as is supposed.

Discussion.

Dr. Woollen reported trying the X-ray treatment on a cancer involving the axillary and inguinal glands, which were apparently favorably affected on account of diminution in size, but the patient died shortly after, of what seemed to be sepsis.

Development of the Organ of Hearing. By C. R. Holmes.

Was an exhaustive article, showing wide research and superbly illustrated with about forty lantern slides. As the subject is perfectly new and very interesting, although not of practical importance, a full abstract will appear in our next issue, under Original Articles.

Prophylaxis of Sinus Disease. By D. Bryson Delavan.

The general practitioner should learn to recognize the causes and early symptoms, to know when the case arrives at a stage when the experience of a specialist is necessary. Prophylaxis consists in treating the causes, which may be predisposing or exciting. Among the first are obstructed nasal drainage, diminished lateral diameter of nares, by fracture or deflection of septum, ridges, etc.; catarrh in upper part of nares, abnormal shape or size of the middle turbinal, hypertrophy of mucosa of middle turbinal, etc. Among the exciting are: pneumonia, influenza, diphtheria, typhoid fever, measles, scarlet fever, smallpox, cerebro-spinal disease, erysipelas, syphilis, tuberculosis, malignant disease, disease of teeth, fracture of the sinus wall, use of non-aseptic instruments, plugging nares for epistaxis.

The allowance of a "cold in the head" to run its usual course without treatment is largely responsible for these diseases.

AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOLOGICAL, AND LARYNGOLOGICAL SOCIETY. Fifteenth Annual Meeting, Cleveland, O., June 16, 17, 18, 1902. Reported by Drs. Harriet Chapman and W. H. Phillips of Cleveland.

Treatment of Immature Cataracts. E. J. Bissell of Rochester.

The most prolific cause is drinking lime water; the internal remedies of most service are secale, napththalin, and sepia. He has found in cases where the lens fibers are not sclerosed, but where the lens is hazy, that considerable improvement can be obtained by the use of his apparatus for applying steam to the eyes. Together with this, he uses gentle massage in the ciliary region. While he does not claim a positive cure, the vision in many cases was improved from $\frac{15}{200}$ to $\frac{15}{40}$. The steam spray in inflammation and opacities shortens the inflammatory course, stimulates and aids in the absorption of opacities of cornea as well as lens. He applies the spray three times the first week, twice the second, and once the third. In addition to the local treatment he considers the general treatment important.

Discussion.

W. A. Phillips of Cleveland does not consider senility a cause of hard cataract; the changes are idiopathic. There are

well-authenticated cases of spontaneous disappearance of cataract. He cited a case of a man aged ninety, with hazy lens and decreased vision, who refused operation. For six months he took gelsemium 3x for some other trouble, when vision improved, eye cleared and remained clear. The urine and blood should always be examined; the kind of food used, the occupation, and possible nervous reflexes looked after, and any errors corrected.

A. B. NORTON has had good results from the high-frequency —sometimes called hypostatic—current of electricity in these conditions. There were two remedies whose provings would point to their usefulness in cataract, naphthalin and secale; they should be given a trial. Dr. Norton insists on a thorough regulation of the habits of the patient.

None of the speakers had received favorable results from succus maritima.

Fifty Consecutive Cataract Extractions. By C. H. HELFRICH, New York.

Ninety-eight per cent. had good results, *i. e.*, $\frac{2}{2}\frac{0}{0}$ to $\frac{2}{2}\frac{0}{0}\frac{0}{0}$. The objections to the simple operation were: increased danger of prolapse, later decrease in vision on account of dragging on the iris, added danger of the lens falling back, and loss of vitreous. Dr. Helfrich performs iridectomy about a month previous with a small keratome, making a small coloboma. In operating cataract he inserts knife at edge of cornea. After capsulotomy he removes speculum and has assistant hold lower lid down, while he himself holds upper lid during extraction of lens. In dressing he formerly used bandages, but now uses adhesive strips. The patient remains in bed three days in a darkened room. Atropin is instilled on second day. If any inflammation sets in, ice, hepar, or rhus is used. The average time in hospital was twenty-two days. A secondary operation was done in fifty per cent. of the cases, not less than six weeks later.

Discussion.

J. A. CAMPBELL of St. Louis agreed that the combined operation was the best, but considered success due to personal technique more than method. He thought, while a delay was

preferable before a secondary operation, a shorter time was allowable. The removal of the speculum was a matter of the doctor's choice and the reliability of the assistant.

New scissors for discission were spoken of. These have sharp points and both edges are sharp ; they open by squeezing.

R. S. COPELAND, Ann Arbor. Success depends even more on avoidance of infection than on traumatism. He sterilizes the eye the night before the operation, uses a bichloride pad, and repeats sterilization next day. In one case, where he had great loss of vitreous, he had injected sterile normal salt solution ; the result was perfect.

It was also suggested that sterilization of the nose was helpful, using a 1 to 2000 permanganate of potassium solution every two hours, for two days previously.

The Importance of Establishing True Binocular Vision by Means of the Stereoscope in the Treatment of Heterophoria. D. W. WELLS, Boston.

A slight esophoria is natural to many people. The cause of squint is a defective development of the fusion faculty. The cases helped by the stereoscope are those of incipient divergent strabismus and heterophoria. Each eye must be able to fix separately. A poor eye may be coaxed by using a mydriatic or covering the good eye for half an hour each day. He uses the phoro-optometer and at first has the patient practice putting the large pictures together ; making fusion easy, gradually educating the fusion power. The results in establishing true binocular vision and relieving asthenopic symptoms had been highly satisfactory.

Discussion.

DR. BISSELL : Approved test cards with large pictures, for the pictures often kept the child's interest and attention, adding a psychological feature in the cure.

Prevention of Myopia. GEO. A. SUFFA, Boston.

Myopia is a slight deviation of evolution, where the coats of the eye are attenuated and stretched, with loss of accommodation and other well-known symptoms. It is greatest during growth. The causes are : inherited tendencies, excessive use

at close point, poor light, etc. There are inharmonious action of the eyes, especially exophoria, loss of tissue by absorption, local malnutrition, and congestion of choroid on account of increased activity of parts. Children's eyes should be watched lest the hyperphoria go over the line into myopia. Glasses need not be worn for near work if accommodation is active.

Discussion.

DR. BROOKS of Ann Arbor said it was his practice in medium grades of myopia—4 to 6 diopters—to give the correction for both near and distance, and thought it most favorable toward the myopia remaining stationary.

Four Cases of Syphilis of Optic Nerve and Retina. T. M. STEWART, Cincinnati.

He was especially fortunate in being able to watch the pathological changes, and found that the greater danger was to the walls of the arteries, the changes going on from thickening to obliteration. He thought there was not so high a degree of papillitis as in secondary syphilis.

Discussion.

W. W. IRVING, Milwaukee, considered that the symptoms were like those of simple retinitis, except for the localized spots of œdema, but that the prognosis in these cases is more favorable.

Exophoria, with Treatment. ALICE V. DUFFIELDS, Chicago.

Wearing prisms combined with glasses is worse than useless, as it weakens already weak muscles, except as they are used to develop latent exophoria. Exercise of the weak muscle with prisms, beginning with a low one and increasing the strength, will develop them and relieve symptoms. She exercises the muscles every other day, at an hour when the patient is not tired, and follows by galvanism and massage.

Discussion.

F. D. W. BATES, Hamilton, Ont., said exophoria was mostly latent, for a spasm of the muscle might occur with hyperopia on account of increase in accommodation. He had never seen spasm of external rectus. He has had, however, good results

from the wearing of prisms, and has one patient wearing 10° prism, base out, comfortably. He believes prism exercises are a tax on the nervous system.

Indications and Counter-Indications for Using Mydriatics. By Dr. Baldwin.

Indications for their use : Spasms, as we cannot be sure of refraction, especially if with blepharospasm ; to obtain axis in astigmia, where one is not absolutely sure of it ; in myopia, on account of danger of prescribing too strong glasses ; if prisms are to be used ; in cases where glasses given by another are unsatisfactory, especially if no mydriatic had been used ; in searching for reflexes ; and where there is more manifest than previous total error.

Contra-Indications : increased tension, previous systemic poisoning, pregnancy, or in a nursing mother.

Discussion.

W. Blair, Pittsburg, uses atropin always in patients under forty, if possible.

Subjective Tests vs. Cycloplegics. E. W. Beebe, Milwaukee.

He does not believe in mydriatics and uses a new refractometer, with which he claims he is able to overcome spasm of accommodation.

Two Cases of Cerebral Abscess Secondary to Otitis Media. A. G. Warner, Brooklyn.

Case I. Was an involvement of the right temporal lobe in a young man aged twenty-four, following an intermittent otorrhœa of several years' standing.

Case II. Was an involvement of the right temporo-sphenoidal lobe, following rapidly upon an acute otitis media.

The symptoms in each case were headache, drowsiness, with difficult speech and later coma ; inequality of pupils, the right being dilated; slight rise in temperature with slow pulse, and in the second case some nausea and vomiting. No sign of neuritis in Case I., but some changes in the fundus in Case II. were attributed to a coincident albuminuria.

Operation.—No pus was found in the mastoid cells of either case, and the sinus appeared healthy. The skull was trephined

at the usual place in the squamous portion of the temporal bone, and trochar inserted after McEwen's method. The abscess was deep in Case I., and very superficial in Case II. The technique consisted in thoroughly evacuating the abscess with the finger and washing with sterile salt solution, afterward packing with iodoform gauze; dressing daily. After few days rubber drain substituted. Both patients died of purulent meningitis.

The chief difficulty in after-treatment of brain abscess is in securing proper drainage. Gauze must be changed too often; rubber is too irritating and far from satisfactory; decalcified bone seems to be most in favor.

Discussion.

Dr. Wilson believes more harm than good results from extensive efforts to remove sloughs and cleanse cavity; first, because of the danger of infecting one's self, and second, of brain traumatism. Irrigation only tends to disseminate the infection. Advises early and radical operative measures in mastoid and brain complication. He exhibited a slightly concave gouge with rounded edge, to be used instead of a flat chisel in mastoid work. Suggested twisted catgut for drainage in brain abscess.

Dr. Shepard advises entering abscess through mastoid antrum instead of through the skull direct. Drainage is the most serious problem with which one has to contend. He considers extreme thickening of the membrana tympani after paracentesis a symptom of involvement of deeper structures.

Diagnosis of Internal Ear Disease. George W. McDowell, New York.

A normal drum-membrane, open tube, and loss of hearing occurring suddenly are indicative of labyrinthine involvement. If loss of hearing occurs slowly, anchylosis of footplate of stapes, sclerosis can be diagnosed. The tuning fork is still our best means of differentiation. In labyrinthal involvement hearing for higher tone is diminished; in middle ear the lower register is more involved. If aërial and bone conduction are diminished in parallel lines, the receiving apparatus is disturbed somewhere; if aërial conduction alone is diminished, the conducting apparatus is at fault. Gellé's test may be used, and the

Galton whistle is efficient. It is often difficult to diagnose between simple labyrinthine involvement and incipient disease of the central nervous system.

Discussion.

H. P. Bellows: Where certain notes in the scale are lost we suspect an affection of the nerve trunk or hearing center in the brain, rather than an affection of the labyrinth. We must be careful to secure a Galton whistle with a clear tone. There are many on the market which are worthless, on account of predominance of the blowing sound.

Dr. McDowell: Note the time the fork is heard; with this as the numerator and the time it should be heard by normal ear or is heard by ear of examiner as the denominator = the measurement of the hearing power. In doing this take into consideration the fact that patients themselves vary in their statements, and that examiner's ear is not always perfect; we shall then strike an average.

The Non-Operative Treatment of Mastoiditis. By Perry Dickie, Brooklyn.

There are many cases, especially those of the acute catarrhal type, which will subside under ordinary antiphlogistic treatment. Before exudation has taken place use the ice-bag, but one must be careful in using cold, as it masks symptoms and relieves pain while the disease is still progressing. Dry heat by the Japanese pocket stove, well wrapped, or the hot-water bag, is decidedly preferable after the very early stage has passed, and can often be used advantageously in the very beginning. Rest in bed till all fever and tenderness have subsided is absolutely necessary. If the m. t. is bulging incise freely, syringe external canal freely with hot water. Aconite, half-drop doses of the tincture every half hour, in the early stage. Ferrum phos. 3x for pain and calc. sulph. 3x in later stages are the best remedies. Morphin sulphate may be administered to control pain, if used carefully and intelligently.

Discussion.

Dr. Hubbard recommended capsicum for pain, swelling, and protrusion of the concha. It immediately relieves before suppuration takes place.

Dr. —— compared the disease to catarrhal type of appendicitis which is benefited by heat. Suppuration is not. China is often indicated.

Dr. Bellows: Belladonna is the best remedy in early stages, used locally in the canal as well as internally. Kali phos. is better for persistent pounding in ear. He deplored the use of morphia.

Dr. Bissell: The symptoms are often disproportionate to the damage done, the mildest case having the most alarming symptoms, and vice versa.

Dr. McDowell: We must differentiate between acute mastoiditis and that following O. M. S. The acute gets well readily under conservative treatment, while scarcely one per cent. of the chronic recover without operation. "When in doubt, operate." The symptoms may all subside, yet your patient does not get well; here operation is demanded.

Dr. MacLachlan reported a case where the mastoid pain persisted for months and was only relieved by operation. The diagnosis was in doubt. There was no pus, but a granular condition of the cells.

Dr. Wells thought it might be a case of periostitis.

Dr. —— considered it a degenerative condition of the bone, which had not gone on to suppuration—a granular mastoiditis. Several cases of chronic mastoid pain have been reported as relieved by correcting nasal and eye troubles.

The Electric Bougie in Strictures of the Eustachian Tube. Dr. Wells.

Uses a current 30–50 volts and 3–5 milliamperes under perfect control. The bougie of gold threaded into the catheter is introduced and the negative pole attached; when stricture is encountered, turn on the current and bougie glides through with little effort.

Dr. McDowell uses the ordinary silver catheter not insulated, and prefers to first fix catheter in position as determined by auscultation and then enter the bougie. The treatment of stricture by this method is very satisfactory.

The Evening Session was a banquet in the Colonial Hotel. President Fellows made a short address, recommending that the

programme be shortened to thirty or thirty-five papers, with more thorough discussions; and that a certain time be apportioned for the report of Unsuccessful Cases.

H. P. Bellows made a *Report of the Committee on Test-proving.*

The *Hom. E., E. and T. Journal* had contributed fifty dollars, and the American Institute of Homœopathy three hundred dollars. Every precaution was taken to have the purest preparation of drugs, the tincture assayed, and thorough reports of both objective and subjective symptoms. Each of the fourteen examiners was supplied with a fascicle for each prover.

Seventy provers commenced, but only twenty-five finished a successful proving. These developed 125 symptoms, of which 65 were subjective and 60 objective; many of the latter would have been unnoted if it were not for the co-operation of the special examiners. An offer was made by Dr. Fuller, of Westborough Insane Hospital, to make microscopical examinations to ascertain if the proven drug has any effect on animal tissues. Dr. Bellows gave very strong reasons why it is absolutely necessary, in order to carry on this scientific and most instructive project, that the provers should be paid; this means that funds should be placed at the disposal of this committee.

Chronic Nasal Obstruction. J. B. Garrison, New York.

In childhood hypertrophic rhinitis is very common; the hypertrophies are found chiefly along the anterior and posterior ends of the inferior turbinal and upon the septum. The snare, the chemical and electric cautery, and electrolysis are the remedies.

Obstruction is frequently met in atrophic rhinitis from scabs and discharges. Peroxide of hydrogen 1 to 4 is recommended, and the following recipe is applied to cavities on cotton pledgets: Succus calendulæ, ʒ i; glycerini et aquæ, āā ʒ iv.

Ridges and spurs are to be removed, if they obstruct drainage. After removal apply sterile sheet celluloid and gauze; leave two days, dress daily to avoid adhesions. Adenoids are to be removed without delay; chloroform anæsthesia is advised. He prefers forceps to curette. Septal deflections are to be corrected; splints without perforation are best. Fibromas are to be removed with cold wire snare if possible, and malignant growths thoroughly eradicated.

Adhesions of soft palate to pharyngeal wall are very difficult

to cure. Best operation is under anæsthetic; dissect away the soft palate, and unite the upper and lower borders of the mucous membrane on the free edge of the palate. Even then adhesion will recur unless great care is taken.

Treatment of Deflections and Deformities of the Nasal Septum.

C. E. Teets, New York.

The methods of different operators were carefully reviewed. Steel's method of using punch is unsatisfactory. Ingalls', dissecting up membrane and then removing redundant tissue, is scarcely less so. Gleason's operation is very satisfactory, in properly selected cases. Splints are not always necessary with this method; it frequently results better without them.

The Asch operation is not wholly satisfactory, inasmuch as it is difficult to apply the scissors with nicety to the exact point desired. Adhesions of the turbinal to the septum and floor of the nose and fractures of the turbinal have been reported. One of the points of the cut septum may catch in splint and be crowded back, leaving a perforation. Meyers' modification of the Asch splint is preferable.

The great desideratum in all septum operations is first to destroy the resilience of the cartilage, and second to so direct the bony septum that it shall keep the cartilage in its proper position.

The essayist prefers his own modification of the Douglas operation. Three weeks prior to operation he removes all spurs and thickenings and a large portion of the inferior turbinal on the concave side, because it is usually markedly hypertrophic, and second because, after the septal operation, the subsequent swelling of this bone would crowd the septum out of the straight line.

After incising the septum in accordance with Douglas' operation, two more incisions are made, one above and the other below the deflection at its attachments; cutting through the cartilage on its concave side but not penetrating the membrane on its opposite side. This destroys all resilience in the cartilage. With a Roe's forceps, the bony septum is now fractured and forced into line. Splints are introduced, and after-treatment as usual.

Discusssion.

Dr. Quay uses Jackson's operation and prefers solid splints. If deflection is at junction of bony and cartilaginous septum, and out of range of anterior septal artery, he advises perforation.

A. W. PALMER said that Douglas' operation was in reality only the common-sense method of individualizing each case, and making incisions where necessary; that he had abandoned the Asch method and adopted this before Dr. Douglas published his article. A horizontal incision in the anterior extremity of vomer immediately below the deflection, with Kyle's saw, greatly assists in destroying the resilience of the septum.

Some Ocular Diseases Due to Pathological Nasal Conditions. A. WORRALL PALMER, New York.

Dacryocystitis, retrobulbar neuritis, chronic conjunctival injection, intractable neuralgia, monocular asthenopia, and muscæ volitantes, with contraction of the usual field, are all expressions, occasionally, of intra-nasal disease. If a patient has been properly refracted without relief, look to the nose for cause. Cited a case of repeated attacks of phlyctenular conjunctivitis cured only after a synechia between septum and turbinals was removed. A fibro-sarcoma of the sphenoidal sinus caused complete loss of vision in left eye with convergent strabismus and greatly reduced vision in right eye.

Syphilis of Larynx. GEO. B. RICE, Boston.

An exceedingly interesting case, diagnosed by its response to potass. iod. as tertiary syphilis. A gentleman from the southwest contracted severe laryngitis, result of cold, with hoarseness, in March, 1901. This subsided in course of time, but the voice still tired easily. This gradually became more pronounced, and dyspnœa supervened. Examination revealed intense congestion, some infiltration, and vocal cords fixed in adduction. Voice was hoarse and monotonous, but no pain, and no glandular swelling. Under treatment case grew worse, and dyspnœa became so pronounced that the patient was taken to the hospital and tracheotomy performed. Some cellulitis followed, and in a few days muco-pus appeared in the wound, a foul odor was present so penetrating that one could scarcely remain in the room, and on the strength of this kali iod., 10 gr. three times daily, was prescribed. Patient gradually improved, the left vocal band remaining slightly less movable than the right, but voice and respiration were both good. On account of the excessive stoutness of patient, until a special tracheotomy tube was made, the only

method by which an ordinary tube was retained *in situ* was by tying the tube collar to the cut extremities of the tracheal ring by means of suture silk.

Discussion.

Dr. Muller : Syphilis of larynx is by no means rare. Thinks improvement was due more to the operation and subsequent rest afforded the larynx than to the kali iod.

Dr. Stewart : Patients taking kali iod. should take abundance of water. Add essence of pepsin to kali iod., where stomach seems to be disturbed.

A. W. Palmer mentioned that the question of diagnosis between syphilis and simulating disease by the administration of potassium iodide was concisely considered last week at the Amer. Med. Assoc. in discussing syphilis of the pharynx, and was not deemed so pathognomonic as formerly. If a condition was cured by the potash, it was syphilis; but if only relieved it was not indicative.

Dr. Rice : We know that the introduction of tracheotomy tube in tubercular and malignant affections of the larynx is often provocative of good. Iodide of strontium, 15 grains four times daily, can be substituted for the potash salt.

Ethmoiditis. By F. B. Seitz, Buffalo.

Three cases where the prominent symptoms pointed to involvement of other organs rather than the nose.

Case I. was characterized by asthenopic symptoms. Lenses prescribed for astigmia were changed frequently without relief.

Case II. Persistent swelling of the lower lid without cause.

Case III. Dyspeptic symptoms most prominent. All relieved by free drainage and cleansing the ethmoid cells. Cleanses by attaching an ordinary hand bulb, filled with the cleansing agent, to an Eustachian catheter.

Acute Hoarseness of Singers and Public Speakers. E. D. Brooks.

These are cases that demand the best attention the laryngologist can give. Results from cold, overstraining the voice, and especially overaction of the thyro-arytenoid muscle. Prophylactic treatment in patients subject to hoarseness is of first importance; exercise and cold sponge bath mornings, with

proper attention to digestive organs and diet. Regular hours and rest are important. During the attack ice applied to the larynx, if seen early; later, dry heat, inhalations of steam from tea-kettle, or camphor menthol vapor, three per cent. in albolene. Aconite, belladonna, ferrum phos., causticum, and phosphorus. Mercurius where there are twin explosions of cough.

Discussion.

DR. HUBBARD : There is usually some chronic trouble at the bottom of these acute attacks. Speakers and singers should give the organs regular and systematic exercise, same as an athlete. One of the common causes of chronic laryngitis is abuse of the voice at puberty. Dislikes steam, but prefers the indicated remedy in oleaginous vapors. Nux vomica after a debauch. Ammonium causticum with a raw, burning sensation in the pharynx. Tincture eythroxylon coca, given just before the vocal effort, will help.

F. D. LEWIS : False vocalization is a common cause. Patient using voice in public should have voice properly trained.

DR. TEETS : Oxalic acid is beneficial for paralysis of tension of the chords. Tangerine oil.

A. W. PALMER cited a case of intermittent attacks of hoarseness dependent upon hypertrophic catarrh of nasal chambers, in turn consequent upon uterine catarrh, which was cured by treatment by a gynæcologist. Laryngeal spray of alumnol will dispel hoarseness caused by congestion of cords for a few hours.

THE TRI-STATE MEDICAL SOCIETY. Chicago, April, 1902.—(Continued).

Plastic Surgery in Ophthalmology, Flavel B. Tiffany, Kansas City, Mo.

Thiersch's graft he finds quite inadequate when the entire lid is to be restored, as only grafts of the full thickness of the skin will serve this purpose. His experience has been that grafts without a pedicle are as likely to live as those with a pedicle. Unless the skin has been badly burned or eaten by disease, the graft may be slipped around from adjacent parts—as the temple, forehead, nose, or cheek; otherwise, it is to be taken from some part of the body that will yield thin, flexible

skin, preferably the inner side of the arm or the chest. The principal point is to graft upon a granular surface free from blood and subcutaneous tissue, and without passing the grafts through any antiseptic fluid. The size of the graft is an important factor; he frequently uses grafts as large as two by three inches—always larger than the surface to be covered, to allow for shrinkage. Shrinkage will not be so marked if all subcutaneous and areolar tissue is carefully clipped away before it is planted.

The history of a case is given of a woman forty-three years old, who, as a result of treatment received for a growth which had appeared two years before just below the right cheek bone, had developed sufficient cicatricial tissue to contract the lower lid downward and the corner of the mouth upward. There was a distressing tension of the parts, the palpebral conjunctiva of both the upper and lower lids was exposed, causing irritation and inflammation of the cornea and a constant epiphora, which excoriated the face.

Five days before grafting a preliminary operation was made, in which the margins of both lids were liberated from adherent scar tissue, the margins being dissected until the palpebral aperture could be closed by incising from the puncta to the canthus. The lids were then freshened at the mucous line and sewed together. Two large raw surfaces were in this way left, one above and one below the eyelids, which gave a succulent, granular surface for the grafts. The skin, including both dermis and epidermis, was removed from the chest of the patient. Two grafts were laid on and dusted with iodoform powder, dressed with iodoform gauze, and bandaged, not sutured, in place. At the end of a week the dressing was removed and both grafts were found adherent throughout, without any evidence of suppuration. That circulation was established was indicated by the pink color of the grafts. The margins of the eyelids have not yet been liberated, as the operator desired to prevent epiphora and to give a chance for the cornea to recover from the irritation caused by exposure.

The patient was relieved of the unpleasant tension caused by the contraction. Cocain hypodermically was used for both operations. HASELTINE.

ABSTRACTS FROM CURRENT LITERATURE.

Case of Lupus Nasi. Shown by F. G. Harvey.—The Laryngological Society of London, February 7 (Excerpt from *Jour. Lar., Rhin. and Otol.*).

A man, aged twenty-four years, had suffered from obstruction of the nares for ten years. In 1894 the right inferior turbinal was excised, which, instead of healing, took on a form of tubercular ulceration. Well-marked signs of pulmonary tuberculosis existed. In May, 1895, "tubercular ulceration of the nose and pharynx" appeared. After this he developed "typical lupus of the skin of the nose, and a little later the epiglottis became affected." Meanwhile the lungs improved. "Whilst under his care Mr. Parker had tried both local and general treatment, but the only thing which did the patient any real good was a very severe attack of erysipelas, after which he was very much better for a long time."

Two Cases of Abeyance of Nasal Breathing.—Nasal Passages Free.—Dr. Pegler.—*Ibid.*

Case I.—Female, aged twenty-three years. In 1899 she had hysterical aphonia and her speech was clipped, a defect known as rhinalgia clausa. Hypertrophied turbinals and adenoids were found and removed, with the effect of aggravating the condition. "The velum, on inspection, appeared paretic, but the exhibitor had no hypothesis to offer, especially in the light thrown upon this case by the next one, except that the nasal breathing and resonance were shut off by spasmodic contraction of the soft palate."

In the discussion, Drs. Baber, Waggett, and others agreed with the exhibitor that it was due to a spasmodic condition of the muscles of the palate. While Dr. Spicer considered it paretic rather than spastic, Dr. Grant said that in this case there is an anæsthetic condition of the nasal mucosa; as she did not feel the air pass through the nose, she did not think it did pass.

Case II.—Woman, aged thirty-one years, complained of her speech, saying: "Her brother said there bust be subthig the batter with her throat because she always spoke through her

dose." The condition dated from a sore throat, during which no Klebs-Loeffler bacilli could be found, but which was followed by regurgitation of fluids through the nose during drinking. Mouth-breather, nares and pharynx unobstructed, pharynx exceedingly irritable, necessitating repeated cocainization in order to examine; pricking sensation in pharynx. Lengthy, forcible closure of mouth, until cyanosis set in, was followed by inspiration through nose; also tying the palate up with tape through the nose and mouth caused ability to breath through the nares. "The (moral) effect of this treatment was permanent, because the speech defect was nearly absent."

In discussion, Dr. Spicer considered defect due to a sigmoid deflection of septum and compensatory hypertrophy of the right middle turbinal. Dr. Vinrace believed it to be a post-diphtheritic paralysis, although no Klebs-Loeffler bacilli were found.

[The abstractor would side with Dr. Vinrace on account of having had a somewhat similar case this past winter].

A. W. P.

Two Cases of Ulcerative Tonsilitis with Unusual Sequelæ.—By Mr. Lennox Browne. British Lar., Rhin. and Otol. Assoc. London, January 10, 1902.

Case I.—C. A. S., aged twenty-four, actor, on June 24, 1901, "complained of a sore throat of a week's duration, chiefly on the right side. Both faucial tonsils were very large, particularly the right one, and much congested. There was an ulcer upon the upper part of the right tonsil, covered with a brownish slough which was easily brushed off. It had not the appearance of diphtheria, and the patient denied syphilis." The diagnosis was acute ulcerative tonsilitis of a toxic nature, and the patient, on being questioned, said he had, about ten days previously, been playing in a theater the sanitation of which was very imperfect.

The progress of the case fully confirmed the diagnosis; the left tonsil became affected, and several fresh ulcers appeared on both sides, with all the characteristics of the disease. They were irregular in outline, with vivid red edges, and as if deeply punched out. There was a marked absence of inflammation in the rest of the tonsils, notwithstanding that they were both very much hypertrophied.

The recovery was slow; treatment was mainly applications of

guaicol, washing out of the mouth with chinosol solution (1 to 1000), and the administration of iron and strychnia.

On August 21 the tonsils were removed; they were so large as to require the employment of the wire écraseur. The patient made a good recovery, but on September 4 presented himself suffering with acute inflammation of the foreskin and lax tissues of the penis and also of the tissues of the scrotum, which were considerably thickened. The testicles were swollen and painful. The whole of the swollen parts were covered with pustules, some of which had broken down. Tonics were again administered, appropriate local treatment adopted, and the patient made a good recovery in about a fortnight.

Case II.—A similar case, aged about thirty-six. There was nothing insanitary in his dwelling-house, but it is possible that his offices were not above reproach in respect to sanitation. In the tonsilar tissue and the sequel it was almost a parallel with the first one.

It may be noted that both patients were of what one would call rather a glandular diathesis.

The first was inclined to be fair in complexion and the other decidedly so; neither was what would be called robust.

In both cases cultures had been made which, eliminating the bacillus of diphtheria, had given evidence of a mixed infection; streptococci, staphylocci, and diplococci being all present.

Remarks. Of course it is no new thing in these cases that they illustrate connection between the inflammation of the tonsils and the testes; but I have neither seen nor read the peculiar sequelæ herein detailed, and on this account they have appeared worthy of record. A. W. P.

Six Cases of Excision of the Larynx.—F. G. Harvey.—*Lancet*, September 21, 1901 ; *Jour. Lar., Rhin. and Otol.*

As the recorded cases of complete excision of the larynx are comparatively few, and the details of the method have not been fully described, the author thinks it may be of interest to publish these cases. The operation may be performed by separating the trachea and cricoid cartilage from the esophagus, commencing from above and working downwards, or commencing from below and working upwards.

He describes the latter method. He assumes the proper preparation of the patient for a long and serious operation: strict antiseptic precautions, and the proper warming and ventilating of the operating room, with as little exposure of the body as possible. The first step, after administering chloroform to the patient, is to make a vertical incision, extending from the hyoid bone to a point as low as the fourth or fifth ring of the trachea. A transverse cut should be made along the whole length of the under surface of the hyoid bone, through skin and fascia, dividing the anterior jugular veins, which must be tied. The sterno-hyoid, the omo-hyoid, and the thyro-hyoid muscles are divided at their insertion into the hyoid close to the bone, and the flaps thus formed are reflected downwards and outwards to either side.

The thyroid isthmus should then be divided between two ligatures, and the lobes of the thyroid separated from the trachea.

When the trachea is completely bared it may be divided from before backwards, and the lower portion separated from its attachments to the esophagus and stitched to the skin. A Hahn's cannula will now be introduced, all bleeding will be arrested, and the parts immediately around the lower portion of the severed trachea will be packed with gauze. It will be found necessary to remove the Hahn's cannula from time to time, and to clear the trachea of any blood which may have found its way into it.

The patient at this point must not be deeply under the influence of the chloroform, as we shall then have warning of any blood trickling into the lungs by his coughing; if this occurs, it will be well to sponge out the trachea by introducing for some distance a swab or sponge on a holder. The next step will be to dissect off the upper portion of the trachea from the esophagus, and the muscles from the lateral surface of the cricoid. The inferior cornu of the thyroid is next bared by detaching and reflecting the crico-thyroid and inferior constrictor muscles. The muscles and the perichondrium in front of the thyroid will now be separated and reflected as far back as the superior cornu, the latter will next be freed by dividing the periosteum on its surface, and pushing it, along with the lateral wall of the pharynx and the loose areolar tissue, backwards until the posterior lateral border of the cricoid is reached.

The outer two-thirds of the lateral portion of the thyro-hyoid membrane, which is attached to the superior border of the thy-

roid cartilage, will then be divided transversely and cautiously at the point of junction of the upper and middle thirds ; and when the adjacent mucous membrane is reached this must be picked up with forceps and divided, whereby the upper portion of the epiglottis can be seized and drawn forwards. The anterior wall of the pharynx is thus opened, and by pulling the epiglottis strongly forward, and with it the whole larynx, the knife can be placed on the posterior surface of the cricoid, and by cutting downwards the anterior wall of the esophagus will be opened. Care must be taken at this point to limit the cut to the parts which are covered in front by the posterior surface of the cricoid ; if this is not done, the lateral wall of the pharynx and the esophagus will be unnecessarily encroached upon, and too much of their anterior walls will be removed, thus rendering it difficult to approximate their edges. The whole larynx is thus completely detached, and the defect in the pharyngeal mucous membrane must now be made good by inserting sutures quite close to the cut edges and so preventing in-turning of the epithelial surfaces. The sewing up must be water-tight, with fine catgut sutures, so as to form a Y-shaped stitched line ; then a row of Lembert's sutures must be added, transfixing the muscular and cellular coats of the esophagus and pharynx. The third layer unites the stumps of the pharyngeal constrictors, and the fourth layer brings together the divided sterno-hyoid and thyro-hyoid muscles. Finally the T-shaped skin incision will be united, leaving only a three-cornered cavity above, which may be packed with iodoform gauze; thus only the above cavity and the tracheotomy wound will remain closed. The Hahn's cannula may be removed in twenty-four hours. Nutriment will be administered by the rectum for from twenty-four to forty-eight hours, after which milk may be given by the mouth. Rötter suggests that the trachea should be divided from behind forwards, but the author considers it far more easy, expeditious, and safe to divide it as he has described. Attention is drawn to the importance of keeping blood out of the lungs, the whole success turning on this point and the accurate suturing of the pharynx and esophagus.

Of the six cases noted, three were treated by this method. Of the remaining three, one was treated by the older method with a preliminary tracheotomy and stitching the pharynx to the

skin ; the second can hardly be classed as an excision, inasmuch as the whole of the larynx, where the soft parts covering it were reflected, was capable of being lifted off.

Details are then given of six cases. The first (epithelioma) has remained well for six years.

The second survived some weeks. The third case died unexpectedly a few days after operation (no autopsy). The fourth was only a partial removal, and the patient survived five months.

The fifth case died from acute pneumonia twelve months after operation, with no sign of any recurrence of the disease. The sixth presented an enlarged gland six months after operation.

This was removed, and his health at date of publication appeared quite satisfactory. A. W. P.

Rhinoliths.—S. S. Bishop.—*The Laryngoscope*, January.

A lady, aged fifty-nine years, consulted author on account of an intolerable itching in auditory canal, accompanied with frequent attacks of hyperæmia and intense heat in same canal and in the corresponding auricle. She had a chronic non-suppurating inflammation of both ears.

Examination of nares disclosed a rhinolith in the posterior portion of the nasal fossa ; the size necessitated it being crushed before removal, the aggregate weight of fragments was 71 grains. This was followed by very slight treatment of the nose and ears, with entire disappearance of all ear symptoms. A. W. P.

Two Unusual Cases of Hæmorrhage Following Adenotomy and Tonsilotomy.—Dunbar Roy, M. D., —*The Laryngoscope*, February, 1902.

Case I.—A healthy, well-developed girl of fifteen years presented for treatment, complaining of mouth-breathing and collection of mucus in post-nasal region. Examination showed adenoids ; after application of cocain and supra-renal extract a small portion was removed with the post-nasal cutting forceps, which was followed immediately with very little hæmorrhage. But three hours later the patient was pale and weak from loss of blood ; it was a slow oozing. Application of supra-renal and introduction of tampons were unavailing. Only the fainting of the patient stopped the bleeding. She had no appearance of a

hæmophiliac. Subsequent inquiry elicited the fact that the patient's menstruation was due at time of operation. This function did not appear until a few hours after the hæmorrhage ceased. Was this a case of vicarious hæmorrhage? or was it secondary hæmorrhage following suprarenal? Author thinks it due to the former cause.

Case II.—Girl, aged four years. Hypertrophied tonsils. The right was removed with Mackenzie's tonsilotome. Fourth day after operation there was a very slight oozing. On the fifth and sixth day the child vomited a pint or more of bloody, grumous material, and after the latter was very pale and weak. Then one grain of powdered extract of suprarenal was administered every two hours for six doses, with no return of bleeding.

A. W. P.

Eye Disease in Tubercular Disease of the Nasal Mucous Membrane and Treatment of the Latter with Lactic Acid.—Krusberg.—*Zeitschr. für Ohrenheilk.*, Bd. 39, Heft. 3.

Of nine cases of tuberculosis of the nares in five the disease extended along the lachrymal canal, attacking the eye. In every case the nose was undoubtedly demonstrated to have been primarily affected. The most satisfactory results were obtained by lactic acid applied upon tampons once a day, these remaining about three hours. A. W. P.

Ears of 1000 School Children between the Ages of Three and Sixteen Years.—Arthur H. Cheatle.—*Journ. of Lar., Rhin. and Ot.*, June.

Four hundred and thirty-two had normal ears; the external ear was affected in 49, the middle in 518, the internal in 1 (a boy aged fourteen—post-scarlatinal), 520 failed to pass, with one or both ears, the whispered voice test at 18 feet; some could, although they had definite signs of old suppuration or a history of earache. Of the 431 cases of ears and hearing normal, 11 had adenoids, 29 had adenoids and enlarged tonsils, and 49 enlarged tonsils alone. Of 166 with depressed membrane and deafness, 77 had adenoids and 64 both adenoids and enlarged tonsils. Of 88 children with chronic suppuration of the middle

ear, neither tonsils nor adenoids were involved in 16; 51 had adenoids, 20 adenoids with enlarged tonsils, and 1 enlarged tonsils without adenoids.

An exostosis (small, rounded, sessile) from the posterior deep meatal wall was found in a boy aged nine, who had adenoids, deficient hearing, and healed suppuration in both ears.

Adenoids were present in 434 children, although slight in amount in 39; they were associated with enlargement of one or both tonsils in 174 instances; some aural trouble was present in 394. Five children had lobulated, and 3 smooth, hypertrophy of the inferior turbinals. Pus was observed in 3 noses. A mucous cyst in the right tonsil was found in a boy aged eight.

J. L. M.

Examination of the Ears of 400 Children, Aged from Six to Fourteen, in a Greenwich Parochial School.—George Murray.—*Jour. of Lar., Rhin., and Ot.*, June.

His test, the watch at 36 inches, found 43 deaf (in 1 it was due to cerumen), of whom 30 had adenoids, complicated in 13 of them with enlarged tonsils. J. L. M.

Empyema of Maxillary Antrum in an Infant.—S. Stewart Shirlow.—*Jour. of Lar., Rhin. and Ot.*, June.

A baby, aged nine months, presented an inflamed swelling of the right cheek of two or three days' standing, free discharge of pus from right nostril, and in the mouth a fistula in the alveolar border of the upper jaw in the first molar region leading to the floor of the antrum. Under anæsthesia this opening was enlarged and through it was removed the perfect crown of a molar tooth, which had been felt with a probe. With daily antiseptic irrigation through this opening, coming freely out of the nose, recovery in a few weeks was uneventful. J. L. M.

BIBLIOGRAPHY.

The reader who notes any omissions or errors will confer a favor by sending corrections to Dr. W. U. Reynolds, 320 Manhattan Ave., New York.

5 Am. J. of M. Sc. (Phila.).
6 Am. J. of Ophthalm. (St. Louis).
7 Am. J. of Physiol. (Boston).
9 Am. Medicine (Phila).
12 Anat. Anz. Centralb. (Jena).
15 Ann. de la Policlin. de Paris.
21 Ann. des Mal. de l'O., du Lar., du Nez et du Phar. (Paris).
22 Ann. d'Oculistique (Paris).
23 Ann. d'Ophtalmol. (Paris).
25 Ann. di Med. Nav. (Roma).
26 Ann. di Ottalmologia (Pavia).
28 Ann. of Ophthalmol. (St. Louis).
29 Ann. of Ot., R. and L. (St. Louis).
33 Arb. aus Anat. Inst. (Wiesbaden).
34 Arb. a. d. Chir. Klin. d. Königl. Univ. (Berlin).
36 Arch. of Ophthalm. (N. Y.).
37 Arch. of Otol. (N. Y.).
38 Arch. d'Ophtalmol. (Paris).
39 Arch. de M. et de Chir. Sp. (Paris)
40 Arch. de M. Experim. et d'Anat. Pathol. (Paris).
42 Arch. Internat. de Lar., de l'Ot., et de Rhinol. (Paris).
46 Arch. f. Anat. u. Phys. (Leipzig).
47 Arch. f. Augenh. (Wiesbaden).
48 Arch. f. Ohrenh. (Leipzig).
49 Arch. f. Lar. u. Rhin. (Berlin).
50 v. Graefe's Arch. f. Oph. (Leipzig)
52 Arch. f. Mic. Anat. u. Ent. (Bonn).
53 Arch. f. d. Gesam. Phys. des Mensch. u. d. Thiere. (Bonn).
54 Arch. f. Pathol. Anat. u. Phys.
56 Arch. Ital. di O., R. e L. (Torino).
57 Arch. Ital. di Lar. (Napoli).
58 Arch. di Ottalmol. (Palermo).
65 Atti delle Accad. delle Sc. M. e Nat. (Ferrara).
75 Beitrage z. Augenh. (Hamburg).
80 Brain.
82 British Med. Journ.
85 Buffalo M. Jour.
86 Bull. de Lar., Ot., et Rh. (Paris).
88 Bull. of Johns Hopkins Hosp. (Balt.).
98 Centralbl. f. Pr. Augenh. (Leipzig).
105 Clinical Journal (London).
120 Edinburgh Med. Journal.
125 Gaceta Medica (Mexico).
126 Gac. Med. Catalana (Barcelona).
128 Gaz. des Hôp. (Paris).
131 Giorn. Internaz. delle Sc. M. (Napoli).
132 Giorn. delle Assoc. Napol. di Med. e Nat.
133 Giorn. delle R. Accad. di M. id Torino.
139 Guy's Hosp. Gaz. (London).
141 Hahnemannian Mo. (Phila.).
144 Hom. E., E., and T. Jour. (N.Y.)
155 Indian Lancet.
156 Indian Med. Gaz. (Calcutta).
157 Indian Med Rec.
172 J. de Phys. et de Pathol. Gen. (Paris).
173 J. of Advanced Therap. (N. Y.).
175 J. of Am. Med. Assn. (Chicago).
176 J. of Anat. and Phys. (London).
178 J. of Brit. Hom. Soc. (London).
182 J. of E., E., and T. Dis. (Balt.).
183 J. of L., R., and O. (London).
184 J. of Ment. and Nerv. Dis (N.Y.)
185 J. of O., O., and L. (N. Y.).
188 Am. J. of Physiol.
193 Klin. Monatsbl. für Augenh. (Stuttgart).
195 Klin. Vortr. und Geb. d. Otol. u. Phar. Rhin. (Jena).
200 La Clin. Ophtal. (Paris).
210 La Parole (Paris).
215 Laryngoscope (St. Louis).
220 Le Progrès Méd.
225 London Lancet.
229 Lo Sperimentale (Fierenze).
235 Med. and Surg. Jour. (Boston).
240 Medical News (N. Y.).
242 Med. Press and Circ. (London).
245 Medical Record (N. Y.).
250 Medical Times (London).
260 Mind (London).
265 Monatsch. f. Ohrenh. (Berlin).
275 N. Y. Eye and Ear Infirm. Rep.
280 N. Y. Med. Jour.
283 N. Y. State Jour. of Med. (N. Y.)
285 No. Am. Jour. of Hom. (N. Y.)
290 Nouv. Icon. de la Salpet. (Paris).
299 Ophthalmic Record (Chicago).
300 Ophthalmic Review (London).
310 Phila. Med. Jour.
313 Post-Graduate, The (N. Y.).
315 Proc. of the Phila. Pathol. Soc.
317 Proc. of the Roy. Soc. (London).
330 Receuil d'Ophtalm. (Paris).
333 Revista Espec. Med. (Madrid).
355 Schmidt's Jahrb. d. in- u. ausland ges. Med.
356 Sei-I-Kwan Med. Jour. (Tokio).
400 Univ. of Pa. Med. Bul. (Phila.).
450 Zeitschr. f. Augenh. (Berlin).
455 Zeitschr. f. Ohrenh. (Wiesbaden).
460 Zeitschr. f. Physiol. u. Phys. d. Sinnesorg. (Leipzig).

OPHTHALMOLOGY.

Intraocular epithelial new formations. Alt, 6, Apl.
Cavernous angioma of orbit. Friedenwald, 6, Apl.
A case of Landry's disease, with involvement of eye muscles. Culbertson, 6, Apl.
Iridectomies in acute glaucoma. Burnett, 6, Apl.
Protection of cornea in some sightless stumps. Gifford, 36, Mch.
Tumor of optic nerve sheath removed by Krönlein's method. Pockley, 36, Mch.
Exophthalmos and loss of eye due to blow on temple. Pusey, 36, Mch.
The older and newer mydriatics, myotics, and anæsthetics in ophthalmology. Schultz, 36, Mch.
The cycloplegic and mydriatic actions of atroscine and I-scopolamine. Macklin, 36, Mch.
Leuco-sarcoma of choroid. McKee, 36, Mch.
Acute traumatic glaucoma without visible signs of the injury. Rust, 36, Mch.
Investigations on eye magnets. Türk, 36, Mch.
Ulcus rodens corneæ. Hillemanns, 36, Mch.
Insufficiency of divergence as an ætiological factor in concomitant convergent strabismus. Wooston, 36, Mch.
Systematic report on the progress of ophthalmology in the second quarter of 1901. Bernheimer, 36, Mch.
Case of acute exophthalmic goiter. Campbell, 82, Mch. 15.
Two cases of rare orbital tumor. Paul, 82, Mch. 22.
Ocular affections associated with glycosuria. Especial reference to central amblyopia. Pyle, 9, Apl. 19.
Priestley Smith's method of preparing macroscopic eye specimens. Swan, 144, May.
Retro-bulbar neuritis with paresis of external rectus. Baldwin, 144, May.
An interesting case of glaucoma. Irving, 144, May.
The paraffin injection treatment of Gersung, with report of cases. Parker, 175, Apl. 19.
The comparative values of cycloplegics. Baker, 175, May 3.
An analysis of a series of operations for the extraction of cataract. Elliot, 225, April 12.
Spontaneous cure of senile cataract. Stephenson, 225, Apl. 26.
Sarcoma of eyelid. Apte, 157, Apl. 2.
Hyperopia. Clarke, 105, Apl. 23.
Electric light conjunctivitis. Grimsdale, 250, Apl. 12, and 242, Apl. 23.
Notes on adrenalin chloride solution in ophthalmic practice. Ferdinands, 82, Mch. 22.
Tuberculosis of the conjunctiva. Stephenson, 82, May 3.

A criticism on the visual test as used in the British army. Bradburne, 225, Mch. 22.

Experimentelle Untersuchungen über die Pathogenese der Methylalkoholamblyopie. A. Birch Hirschfeld (Leipzig), 50, lii. 2.

Helmbold's Perimeter nebst einigen Veränderungsvorschlägen. W. von Zehender (München), 50, lii. 2.

Zur Frage der Abreifsung der Netzhaut von der Ora serrata. A. Vossius (Griefsen), 75, 47.

Zur Frage der Abreifsung der Netzhaut an der Ora serrata. R. Deutschmann, 75, 47.

Ueber die hyaline Degeneration der Cornea. Adolf Sachsalber (Graz), 75, 48.

Ueber Enophthalmus congenitus. Rudolf Bergmeister (Wien), 75, 48.

Zur Kenntniss der Chininamaurose. Ernst Nohl (Darmstadt). 75, 48.

Beitrag zur Kenntniss der Angiosklerose der Centralgefässe des Auges. E. Hertel, 50, lii. 2.

Anatomische Untersuchung über Exenteratio bulbi als Prophylaxe sympathischer Ophthalmie, 50, lii. 2.

Ueber Staar-Operation in Indien. Pope (Madras), 98, Sept.

Staar-Extraction bei Aniridie, bei congenitalem Iris-Colobom und bei Ablatio retinæ. Augstein (Bromberg), 98, Sept.

Eine seltene Augen-Verletzung. Quint (Solingen), 98, Oct.

Die Unterscheidbarkeit rechtsäugiger und linksäugiger Wahrnehmungen und deren Bedeutung für das körperliche Sehen. Heine, 193, Aug.

Ueber den skiascopischen Strahlen verlauf. Heine (Breslau), 193, Aug.

Weitere Beobachtungen nach Gram sich entfärbender gonococcenähnlicher Diplococcen auf der menschlichen Conjunctiva. D. F. Krnkenberg (Halle), 193, Aug.

Beiträge zur pathologischen Anatomie der Myopie und des Hydrophthalmus. Ernst Marschke, 193, Sept., Oct.

Experimentelle Untersuchungen über den Heilungsvorgang bei perforirenden und nicht perforirenden Hornhautwundeng mit besonderer Berücksichtigung der Cocaïn-Einwirkung. Atsuhiko Massugi (Japan), 193, Aug., Sept., Oct.

Ein Beitrag zur Frage der Leistungsfähigkeit der Kuhntischen Methode der Bindehautüberpflanzung, nach einer Demonstration auf der 6en. Versammlung Rheinisch-Westfälischer Augen-Ärzte in Bonn, am 1. Juni, 1901. O. Scheffels (Krefeld), 193, Sept., Oct.

Parinauds Theorie des binocularen Sehens. A. Bielschowsky (Leipzig), 193, Sept., Oct.

Ein weiterer Beitrag zur doppelseitigen Angeborenen Melanose der Cornea. W. Stock (Freiburg), 193, Sept., Oct.

Ueber die optische Wahrnehmung der Objekte. E. Storch (Breslau), 193, Sept., Oct.

Pulsirender Exophthalmus hervorgernfen durch Encephalocele Orbitalis. Wilhelm Ercklentz (Breslau), 193, Sept., Oct.

Subconjunctivale Hetolinjectionen. Pflüger, 193, Sept., Oct.

Embolie einer knäuelförmig in den Glaskörper Vorragenden Arteria papillaris inferior. Ward A. Holden (New York), 193, Sept., Oct.

Magnetextraction eines Eisensplitters aus der Linse ohne Cataractbildung. M. Sacher-Russland, 450. Oct.

Ein Fall von intermittirender einseitiger Oculomotoriuslahmung. Stoerver (Witten), 450, Oct.

Glaucomenfall in Folge von Luxation einer subluxierten Linse durch Atropineintraufelung. Georges Weill (Strassburg), 450, Oct.

Beiträge zur Pathologie der Orbitalen Schussverletzungen. W. Goldzieher (Budapest), 450. Oct.

Eine ungewöhnliche Aderhautnetzhautveränderung auf congenitaler Basis. E. Spengler (Graz), 450, Oct.

Zur Kenntniss des Ablaufes der Erregung im Sehorgan. C. Hess (Würzburg),460, xxvii. 1 und 2.

Anatomie und Entwickelungsgeschichte der hinteren Irisschichten mit besonderer Berücksichtigung des Musculus Sphincter iridis des Menschen. A. Szili, 12, xx. No. 7.

Trachom beim Kinde. A. Schiele, 47, xliv., Ergänzungsheft.

Sehschärfe und Astigmatismus. Adolf Steiger (Zürich), Idem.

Subconjunctivale Injection von Jodipin am Kaninchen Auge. Louis Naegeli, 47, xliv., Ergänzungsheft.

Ein Beitrag zur Gonococcen-Lehre (Conjunctivitis), Idem.

Eine neue Methode zur Messung der Tiefe der vorderen Augenkammer. Emil Hegg (Bern), Idem.

Ulcus durum des Oberlides. Fritz Weber (Zürich), 47, xliv.

Ueber evenig bekannte Erkrankungsformen des Sehnerven. A. Siegrist (Basel), Idem.

Ueber die Matrix des Glaskörpers im menschlichen und tierischen Auge. Addario, 12, 18 März.

Ueber verschiedene Formen Angeborener Cataract und ihre Beziehungen zu einander. v. Hippel, 50, LIV. B., 1 H.

Weiterer Beitrag zur Pathogenese der Alkoholamblyopie. Birch-Hirschfeld, 50, LIV. B. 1 H.

Experimentelle Grundlagen für kleinische Versuche einer Serumtherapie des Ulcus Corneæ Serpens nach Untersuchungen über Pneumocokkenimmunität. Römer, 50, LIV. B. 1. H.

Vier Fälle von Erkrankung der Zentralarterie. Haitz, 75, 50 Heft.

Die sekundäre Atrophie des Sehnervs nach Macularerkrankung. Haab, 75, 50 Heft.

Sklerokeratitis rheumatica—Cyclitis specifica—Dacryocystitis diphtherica. Eine kasuistische Zusammenstellung. Felichenfeld, 98, Januar, Februar.
Ueber eine Methode das Körperlich-sehen beim Monocularsehen zu heben. Schmidt-Rimpler, 98, Januar.
Ueber die Pilz-Concremente in den Thränen-Kanälchen. Hirschberg, 98, Januar.
Luxatio bulbi intra partum. Bock, 98, Januar.
Erste Hilfe (Selbsthilfe) bei Kalk-verletzung des Auges in Bau-Gewerbe. Hoppe, 98, Februar.
De la hernie cérébrale dans les interventions intracraniennes dirigées contre les otites moyennes suppurées. Cabouche, 21, Avril.
Le plancher de la caisse. Étude Anatomique. Rozier, 21, Avril.
Kinescopie, nouvelle méthode de détermination de la réfraction oculaire. Holth, 22, Avril.
Sur la vision des signaux colorés et les épreuves de la perception colorée. Broca, 22, Avril.
Conceptions ophtalmologiques personnelles de rhazes dans le Hawi. Pergens, 22, Avril.
Injections d'air dans la chambre antérieur comme traitement de la tuberculose oculaire. 22, Avril.
Relation de la pression intra-oculaire et de la pression sanguine. Influence de la pression atmospherique. Chailan, 38, Avril.
Remarques cliniques sur le traitment mercuriel en général et celui par les injections huileuses de biiodure de mercure en particulier. Scrini, 38, Avril.
Des rapports anatomiques entre les sinus de la face et l'appareil orbito-oculaire (suite et fin). Stanculeanu, 38, Avril.
Paralysie traumatique du muscle droit inférieur. Terrien, 38, Avril.
Les optotypes portatifs du Dr. Landolt. Schoute, 38, Avril.
L'acuité visuelle déterminée avec les lettres. Landolt, 38, Avril.
Impotence des muscles oculaires extrinsèques par traumatisme. Panas, 38, Avril.
Membrane pupillaire persistante adhérente à la cornée. Van Duyse (Gand), 38, Avril.
Mode de cicatrisation de la capsule du cristallin après l'opération de cataracte. Terrien, 38, Avril.
De la nèvrite optique dans les maladies de l'encéphale. de Lapersonne, 128, 15 Avril.
De l'amblyopie toxique. de Lapersonne, 220, 19 Avril.
Leçons de therapeutie oculaire. Darier, 220, 3 Mai.
A propos des injections mercurielles et en particulier du benzoate de mercure dans le traitment des diverses affections specifiques de l'œil. Armaignac, 330, Mars.

Des altérations de la fovea centralis dans la myopie et de leur traitement. Galezowski, 330, Mars.
L'ulcère serpigineux de la cornée et son traitement (suite et fin). Vieusse, 330, Mars.
De l'èclairage artificiel. Houdart, 330, Avril.
Autoplastie palpébrale. Une opération d'un large lambeau de peau utilisé pour refaire des paupières. Tiffany 330, Avril.
Las manifestaciones oculares externas y de la vista, provocadas por el tobaco. Fernández, 125, Abril 15.
Tratamiento del pannus granuloso por la electrolisio. Loor, 333, 20 Marzo.
Consideraciones sobre el glaucoma. Presencia, 333, 20 Abril.
Tratamiento de las estrecheces de las vias lagrimales en los niños. Blanco, 333, 20 Abril.
Sui primordi dello sviluppo del nervo acustico-faciale nell'uomo. Giglio-Tos, 12, 14 Mai.
Dell' estrazione di frammenti di ferro dalle parti anteriori dell' occhio con la lancia resa calamita. Cofler, 26, F. 1°–2°.
Differente azione fisiologica del polo positivo e del polo nega- sul campo visivo. Tarducci, 26, F. 1°–2°.
Emianopsia bitemporale con reperto anatomopatologico in un caso di acromegalia. Basso, 26, Fasc. 1°–2°.
Ricerche di patologia sperimentale sull'endotelio della cornea. Monesi, 26, F. 1°–2°.
Ricerche sull' immunizzazione dell' occhia contro l'infezione pneumococcica. Gatti, 26, Fasc. 1°–2°.
Anchiloblefaro filifonme congenito. Obeath, 58, Mar.–Apr.
Alterazioni funzionali della sfera visiva cerebrale (intorno ad un caso di emicrania oftalmica). Ricchi, 58, Mar.–Apr.
Determinazioni d'acutezza visiva mediante ottotipi a fondo colorato. Colombo, 58, Mar. Apr.
Sulle modificazioni chimiche riflesse da una retina all' altra. Ricerche sperimentali. Maggio, 58, Mar. Apr.

OTOLOGY.

Treatment of thrombosis of lateral sinus following middle-ear suppuration. Dench, 5, May.
Sinus thrombosis depending on middle-ear disease, with a case following acute sore throat. 9, Apl. 19.
On the treatment of deafness of middle-ear origin. Watson, 82, Mch. 22.
Two cases of abscess in the temporo-sphenoidal lobe. Presenting no lesion in the ears. Lees, 225, May 3.
Indications for the mastoid operation. Dean, 9, May 3.
Adenoids in relation to structural changes. Lewis, 85, May.
Some observations upon massage of the middle-ear. Schenck, 144, May.

Electrical treatment of aural vertigo. Scheppegrell, 173, May.
Some hints on the treatment of deafness. Cott, 155, Mch. 31.
Treatment of middle-ear suppuration. Arthur, 183, May.
Case of neurasthenic nerve-deafness. Grant, 183, May.
The graver complications of chronic purulent otitis media. Editorial, 157, Mch. 5.
Die Umwandlung (Metaplasie) des Cylinderepithels zu Plattenepithel in der Nasenhöhle des Menschen und ihre Bedeutung für die Ætiologie der Ozæna. Schönemann, 54, Band 168, Heft 1.
Ein Fall von Mittelohrblutung aus dem Bulbus v. jugularis nach Verätzung. Jurgens, 265, April.
Ueber eine mit Erfolg operierte Cyste des linken Hinterlappens nebst Bemerkungen. Cramer (Cottbus), 450, April.
Ein Fall von Jacobson'schen Organ beim Erwachsenen. Mangakis, 12, 16 April.
Seringuage de l'oreille et canules auriculaires. Suarez de Mendoza, 39, Jan.
La finestra rotonda è la sola via pei suoni dall'aria al labirinto. Secchi, 56, Marzo.
Le emorragie dell'orecchio intorno. Ferreri, 56, Marzo.
La evolución del órgano auditivo en la escala zoológica (conclusión). Suñê y Molìst, 126, 31 Marzo.

LARYNGOLOGY AND RHINOLOGY.

Tonsillar and peritonsillar suppuration. Hartz, 9, Apl. 19.
Fatal case of acute primary infectious pharyngitis with extreme leukopemia. Brown, 9, Apl. 19.
Maxillary antral suppuration, with a case. Emerson, 9, Apl. 19.
A case of primary erysipelas of throat, migrating to face via left Eustachian tube and auditory canal. Frost, 9, Apl. 26.
Mentholization of mucosa of the air passages. Briggs, 9, Apl. 26.
Removal of a nail from the right bronchus of a child of two and a half years. Anderson, 82, April 12.
An address on the various forms of goiter. Berry, 225, May 3.
Remarks on a series of cases of external operations on the larynx. Shield, 82, April 19.
Chronic suppuration of maxillary antrum. Tilley, 82, Apl. 19.
Treatment by Asch's operation of deviations of the nasal septum. Yonge, 82, Apl. 19.
Influence of nasal and naso-pharyngeal obstruction upon the development of the teeth and palate. Whitehead, 82, Apl. 19.
Foreign body in the œsophagus. McKenzie, 82, Apl. 19.
Subcutaneous injection of paraffin for the removal of deformities of the nose. Downie, 82, May 3.
Case of epithelioma complicating lupus erythematosus treated by scraping and healed by the X-Rays. Taylor, 82, May 3.
The submucous areolar tissue of the larynx and its significance in the spread of œdema. Turner, 120, May.

Hyoid apparatus in man, in which a separate epi-hyal bone was developed. Turner, 176, Jan.
Medicinal treatment of thyroid hypertrophy. Garrison, 144, May.
Ein Beitrag zum Verlaufe von Larynxtuberculose in der Gravidität. Veis, 265, April.
Ueber die Wirkung des Eucain B auf die Geshmacksorgane. Fontana, 460, Bd. 28. H. 3 u. 4.
La trachéotomie appliquée au traitement des papillomes crico-trachéaux. Sebileau, 21, Avril.
De l'extrait de capsules surrénales dans les opérations nasales. Taptas, 21, Avril.
De la nécessité d'une intervention radicale et opportune dans les végétations adenoïdes. Suarez de Mendoza, 39, Fev.
Revue générale des kystes hydatiques du cou. Thevenot, 128, 22 Mars.
De la methode des subluxations rythmées du maxillaire inférieur pour prévenir la syncope chloroformique. Valery, 128, 29 Avril.
Recherches sur le pouvoir antitoxique de la mucine. Arloing, 172, 15 Mars.
Analyse du courant d'air phonateur en tchèque. Chlumsky, 210, Mars.
Bec-de-lièvre congénital compliqué de fissure alvéolo-palatine avec saillie et torsion des os intermaxillaires internes. Debrie, 210, Mars.
Étude comparée de quelques variétés d'abcès d'origine dentaire. Toubert, 210, Mars.
Les complications de l'angine de Vincent. Simonin, 210, Mars.
Stomatite ulcéro-membraneuse staphylo-palatine avec bacilles fusiformes et spirilles de Vincent. Siredey et Mantoux, 210, Mars.
Affections de la bouche et de la gorge. Meyer, 210, Mars.
Sulla localizzazione corticale del centro dell'odorato e del gusto. Saccone, 25, Marzo.
Sanguisughe nella trachea e nel rino-faringe. Estrazione per le vie naturali. Citelli, 56, Marzo.
Un nuovo metodo di diagnosi della sinusite mascellare. Tonietti, 56, Marzo.
Le vegetazioni adenoidi naso-faringei in relazione ad alcune malattie dell'infanzia. Efficacia dell'intervento chirurgico. Gatteschi, 56, Marzo.
Adenoma puro della tonsilla. Nota clinica ed istologica. Tanturri, 57 Apr.
Angiosarcoma del setto. Studio clinico ed istologico. Nardi, 57, Apr.
Sulla contrattura delle corde vocali in taluni casi de 'posizione mediana delle stesse.' Trifiletti, 131, 31 Gen.
Escobilladura bronquial y ventajas de la traqueotomia sobre la intubación en el garrotillo complicado con pneumonia. Martínez Vargas, 126, 15 Abril.

BOOK REVIEWS.

SELF-PROPELLED VEHICLES; A PRACTICAL TREATISE ON THE THEORY, CONSTRUCTION, OPERATION, CARE, AND MANAGEMENT OF ALL FORMS OF AUTOMOBILES. By JAMES E. HOMANS, A. M. With upward of 500 illustrations and diagrams, giving the essential details of construction and many important points on the successful operation of the various types of motor carriages driven by steam, gasolene, and electricity. Theo. Audel & Co., 63 Fifth Avenue, New York. Pp. 632.

A unique handy handsome volume, that should be in every gentleman's library. Even if he be not burning to have an automobile, his education is not complete without some general idea of the principles of construction and management of these vehicles; they have come to stay.

We have not been able to find in any book, periodical, or person the information contained in these forty-five chapters. Rival makes are discussed dispassionately; elementary explanations are given for which no periodical could afford space. We note three errors in computing the heating surface of a vertical fire tube boiler (p. 167): the full length of the tubes is taken without allowing for the ends embedded in the plates; the total area of each tube plate is given for its heating surface without deducting the area of its perforations; and no allowance is made for the length of tube above the water line. In the next edition, which will probably soon be required, the voltmeter should be explained, as well as other types of ammeters. More space, we hope, will be devoted to electric vehicles. We are not told whether the electrolyte freezes or changes in very cold weather. The index, which is very thorough, does not mention "winter—effects of," as we hoped it would. J. L. M.

A MANUAL OF OTOLOGY. By GORHAM BACON, A. M., M. D., Professor of Otology in Cornell University Medical College, New York. With an introductory Chapter by CLARENCE J. BLAKE, M. D., Professor of Otology in Harvard Medical School, Boston. Third Edition. In one handsome 12mo volume of 437 pages, with 120 engravings and 7 plates in colors and monochrome. Cloth, $2.25 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1902.

The fact that three editions are called for in less than four years establishes this as one of our best works of its kind.

Lumbar puncture and the significance of leucocytosis are among the new matter.

If pus can be demonstrated in the cerebro-spinal fluid Dr. Bacon thinks one may be reasonably sure that there is meningitis due to suppurative otitis media. Leucocytosis has been shown to exist in suppurative affections of the ears ; its presence should be one of our helps in reaching a diagnosis of brain abscess concurrent with otitis media and mastoiditis. Much work, however, is yet to be done in this direction. Very wisely Dr. Bacon protests against the "exceedingly bad" practice of aborting a cold with large doses of quinine : "Much injury to the hearing has been brought about by such treatment, especially in those who inherit a tendency to deafness and who are sufferers from more or less middle-ear inflammation." One chapter of this book is devoted to adenoid growths, enlarged tonsils, and diseases of the nasal passages. Our author recommends ether for the adenoid operation in children, but not complete anæsthesia for fear of blood entering the trachea. We are surprised to read that in "Hooper's Method" he has the anæsthetized child (chloroform or ether) held *upright* in the lap of an assistant. Surely this must be an inadvertence! For hæmorrhage he sprays thoroughly the nares with ice water while the patient is recumbent. No mention is made of antisepsis or asepsis, except to spray with a Dobell or a mild Listerine solution forty-eight hours after the operation, "if necessary"! J. L. M.

American Edition of Nothnagel's Encyclopedia—Diphtheria, Measles, Scarlet Fever, and German Measles. Diphtheria, 192 pp., by Wm. P. Northrup, M. D., of New York. Measles, 150 pp., Scarlet Fever, 256 pp., and German Measles, 22 pp., by Professor Dr. Th. von Jurgensen, Professor of Medicine in the University of Tübingen. Edited, with additions, by William P. Northrup, M. D., Professor of Pediatrics in the University and Bellevue Medical College, New York. Handsome octavo, 672 pages, illustrated, including 24 full-page plates, 3 of them in colors. Philadelphia and London : W. B. Saunders & Co., 1902. Cloth, $5.00 net ; Half morocco, $6.00 net.

This volume, the third in the series of English translations of the "Nothnagel System of Practical Medicine," needs no recommendation. Professor Jurgensen and Dr. Northrup are too well known for us to expect anything but the best. Dr. Northrup

was associated with Dr. O'Dwyer at every step in the perfection of intubation tubes, and has described this treatment of diphtheria clearly with good X-ray and other illustrations.

Professor Jurgensen's monograph on Measles is comprehensive, bringing out fully the Danish records of the Faroe Islands epidemic. "Fourth Disease" and German Measles have been accorded spaces consistent with their importance. The editor has made the work one of the best and most up-to-date treatises on these subjects extant. The book is profusely illustrated, containing, beside a large number of text-cuts, twenty-four full-page plates, three of which are in colors.

Nasal diphtheria may run a very protracted course, the symptoms being those of catarrh or chronic rhinitis. Very pure cultures of diphtheria bacilli are often found in nasal discharges. Treittel and Loppel found virulent bacilli in the nose fifty-five days after the disease seemed cured.

Pure laryngeal diphtheria, untreated, is fatal in 95 per cent. to 98 per cent., according to Monti ; but a spontaneous recovery is possible, even in the late stage. Intubation and antitoxin have robbed this disease of its terror.

Conjunctival diphtheria, according to Jacobi, is less frequent than in former years. The bacilli may be associated with strepto-, staphylo- or gonnococci, even in the catarrhal form, which has no pseudo-membrane.

Middle-ear diphtheria has been observed in two cases where the lining membrane of the Eustachian tube was absolutely normal. Of 144 fatal cases 86 had disease of the middle ear ; in 59 (uncomplicated) there was an exudate in one or both ears ; in 44 the exudate was purulent. The mastoid cells (one or both sides) were involved in 13 cases. Among 36 purulent cases the diphtheria bacillus occurred 9 times ; in 9 non-purulent cases it was found 4 times.

Councilman, Mallory, and Pearce suggest that the otitis media may have been caused by the associated pyogenic germs ; the diphtheria bacilli being accidental, as they were seldom found in pure culture.

Dr. Northrup thinks that bacteriology alone can permit us to make a positive diagnosis of diphtheria. He does not mention any treatment but serotherapy and intubation, except to quote figures to show the superiority of that operation over trache-

otomy. Of 3082 antitoxin cases, 1355 were tracheotomized—mortality 42 per cent.; 1173 were intubated—mortality 30.8 per cent.

Koplik's spots, diagnostic of *measles* before the skin eruption, have been verified by Libman, Flinet, Knöspel, Finkelstein, Slawyk, Havas, Hirsch, Ross, Lorand, and Falkener. Manasse has seen them without consecutive measles, and measles where they have not preceded. During the period of invasion of measles on the buccal or labial mucous membrane—not on the palate—we see small, irregular, bright red spots; in the center of each strong daylight shows a minute *bluish-white* (not yellow) speck. They remain punctate and do not become opaque, as does sprue.

Laryngeal examinations have been made in only a small number of cases of measles, but its eruption has been observed in the larynx. Von Jurgensen calls persistent laryngeal stenosis a grave symptom in measles, quite apart from any pseudo-membrane. Northrup would consider it an added diphtheritic infection calling for antitoxin, and maybe intubation. In large New York institutions, says Northrup, "it is at present the established custom to give immunizing doses (250 to 500 units) of antitoxin to infants and young children in the invasion stage of measles."

[Dr. J. E. Winters denies that antitoxin has done all that its statistics appear to show, and considers it dangerous to life, causing septicæmic fever or even pneumonia; he states that horse serum dissolves the human blood corpuscle.]

Beside acute catarrh of the middle ear and severe purulent otitis media complicating measles, "An invasion of the labyrinth by cocci, causing necrosis, has been repeatedly demonstrated of late."

As to treatment of measles, "nasal lavage is more often harmful than useful; it often leads to otitis media." Very properly, darkening of the room is condemned; "the light should not shine directly into the patient's eyes, . . . slight shading of the windows is permissible in the case of a too brilliant side light. . . At night the room should be kept dimly lighted. . . Light and air are necessary to patients suffering with any infectious disease." [To which the reviewer adds an imperative caution against any brightly illuminated spot in the

patient's field of vision, which, by contrast with its surroundings, may have the effect of a glare.] Von Jurgensen is satisfied that "our . . . only hope of saving the patient's life in severe cases lies in hydrotherapy." Of course this and the nursing he outlines are valuable, but he would not have made such a statement if he had seen the effects of bryonia, aconite, belladonna, lachesis, euphrasia, antimonium tartaricum, apis, arsenic, mercurius, pulsatilla, phosphorus or sulphur, etc., when administered upon their homœopathic indications. Careful statistics, covering several years in about thirteen cities, showed the homœopathic mortality in measles to be 1/240 that of the old school.

"In scarlatina the severest constitutional symptoms can be produced from the nasal cavities as well as the middle and inner ear."

"Statistics show a marked connection between purulent rhinitis of the eruptive stage and fatal cases. This may be considered the mostly deadly of all scarlatina complications, leading avparently to over half of the mortality. It is a highly virulent streptococcus coryza, apt to infect the nasal sinuses, middle-ear, and cervical glands; the latter usually suppurate under these circumstances."

A case is noted of erosion of the sinus transversus with fatal hæmorrhages from the ear, which originated in a purulent otitis media following scarlatina.

Involvements of *the eyes* are rarely due directly to the scarlatina toxin. Conjunctivitis may be attributed to brain lesion, which causes imperfect closure of the lids and lessened secretion of tears; or to infection through the lachrymal passage. "The danger of a loss of sight is by no means a rare one in scarlatina."

J. L. M.

Diseases of the Nose, Pharynx, and Ear. By Henry Gradle, M. D., Professor of Ophthalmology and Otology in the Northwestern University Medical School, Chicago. Illustrated. Philadelphia and London, W. B. Saunders & Co., 1902.

Perusal verifies the preface in saying this is neither a concise, sharply subdivided text-book for the student, nor an exhaustive one of encyclopædic scope, but is a plain, rational consideration of almost all the diseases of the regions considered, placed in, what is the characteristic of the work, a most interesting, readable

phraseology or form. The division of the subject-matter is rather original: *e. g.*, Chapter II., General Ætiology and Hygiene of Nasal and Pharyngeal Diseases, saves great repetition in dealing with these diseases, as they are principally of catarrhal character.

As is only found in a few of the most recent books, the author has dealt with these organs as though they were a part and parcel of the human organism (as they are) and not a thing apart; evidenced by his remarks about "cold feet," "nasal reflexes," etc. Writing upon the latter he says: "In other cases previous enfeebling influences, sedentary habits and want of outdoor exercise, long interference with sleep, anxiety, sometimes pregnancy, convalescence from infectious diseases, and especially anæmia play an ætiologic rôle." The chapters on embryologic development are also interesting. A most excellent work for the general practicioner and for the special student. A. W. P.

A Hand-Book of Diseases of the Nose and Pharynx. James B. Ball, M. D. (London), Physician to the Department for Diseases of the Throat, Nose, and Ear, West London Hospital; Lecturer on the Throat, Nose, and Ear, West London Post-Graduate College; Formerly Physician to the West London Hospital. Fourth Edition, with 61 illustrations. New York, William Wood & Co., 1901. Pp. 440. Cloth, $2.25.

A well-printed and bound collation of all the diseases of the cavities treated of, in which the consideration of the pathology, symptomatology, etc., are very good, but the paragraphs on treatment are rather meager and not quite up to date. Two of them in particular, the direction to remove the operculum (anterior portion of middle turbinal), and to puncture the maxillary antrum with Lichtwitz trocar and cannula, along with the illustrations thereof, are apparently impractical to one who has frequently employed these procedures; while on the other hand, sphenoidal sinusitis is more completely handled than is usual in text-books. A. W. P.

VOL. XIV. SEPTEMBER, 1902. No. 5.

THE JOURNAL OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

EDITOR,
JOHN L. MOFFAT, M. D.

ASSOCIATE EDITOR,
A. W. PALMER, M. D.

EDITORIAL.

EXAMINE DIABETIC BLOOD.

THE presence of diabetes, especially its degree and progress, is at times of great importance in determining upon a cataract or other operation, hence this disease is one of practical interest to our specialists.

Sugar once in the urine is no longer a factor except that its amount is still—for want of a more rational method—taken as an indication of the progress of the disease.

The next step in hæmatology should be a practical method of detecting and measuring the sugar in diabetic blood.

Spectroscopic authorities tell us that there is no spectrum characteristic of sugar. Let us hope that lines will soon be discovered differentiating the spectrum of diabetic from that of other blood.

With one form of the polariscope we can recognize the presence of diabetic sugar, and with another form we can measure minute quantities of it.

With Mitscherlik's polaristrobometer 0.2 per cent. of diabetic sugar in any transparent physiological or pathological fluid can be recognized by its specific rotation of $+56.4°$.

How much blood, for this or the other polariscope, will it be necessary to abstract from the patient? The 100 mm. tube holds 2.5 c. c. or 50 drops; must this amount of blood be filtered *in vacuo* through animal charcoal? That is, can we not detect less than 5 mgm. of sugar? It would seem that half a milligram of sugar should rotate the light passing through five drops of blood diluted with forty-five of water; if this is not sufficiently transparent for the light at our command, ordinary filtration through animal charcoal should suffice.

Are we, then, too optimistic in anticipating the diagnosis of diabetes with but five drops of blood? And its measurement by transferring the same tube to another polariscope?

This is our dream: immediate dilution of a few drops of blood in the polariscope tube, inspection through the polaristrobometer and—if diabetes be present—transfer of the tube to a polariscope and measurement, all within a a few minutes—"while the patient waits," if he likes. It should be possible to take and dilute the blood at the bedside, preserving it for transmission to the hæmatologist without requiring the attendance of the patient at the laboratory. Of course prolonged experimentation is necessary to establish this, or its equivalent, procedure.

The most valuable discoveries are attained by surmounting insurmountable obstacles. Who will thus achieve fame, advance scientific medicine, and benefit humanity?

J. L. M.

CORRECTIONS.

ON p. 273 of our last issue Dr. F. D. W. BATES is reported (line 2) as having a patient wear with comfort 10° prism "base out." It should have read, base *in*. The doctor writes that he has never seen a patient who could wear any prism "base out" with either comfort or benefit.

Dr. MOFFAT'S meaning on p. 250 was quite reversed. Instead of "There are other methods beside homœopathy; that comes into play only when a remedy is to be selected" the type made him say, "There are other methods beside homœopathy that come into play when a remedy is to be selected."

VOLUNTARY NYSTAGMUS (?)*

J. WHITEFIELD SMITH, B. S., M. D.,

Lecturer on Physiology and Hygiene, Ill. Wesleyan Univ.; Oculist and Aurist to the Chicago and Alton Railway; Ophthalmic and Aural Surgeon, Brokaw Hospital.

Bloomington, Ill.

THE unique phenomenon of oscillating or vibrating the eyes at will, which power a few individuals possess, and which indeed simulates a nystagmus, is in reality not a nystagmus at all. It is physiological rather than pathological and should be designated by a comprehensive term in the nomenclature of medical science. I suggest the term *ophthalmodonesis*, and would define it as a voluntary tremulous or oscillatory movement of the eyes.

Mr. De F., aged twenty-one, a student in the Illinois Wesleyan University. The father, aged forty-six, in good health, is of Huguenot blood. His mother (of English parentage) died, aged thirty, of typhoid fever. There has never been any eye trouble, so far as can be obtained, in the family history, except that the sister had an apparent left convergent strabismus in near vision, but the eyes were normal when she would direct them in distant vision. Patient had some slight inflammation of the eyes when he was seven or eight years old; as he remembers, some solution was instilled into the eyes for a few days.

The patient has the ability to make both eyes vibrate rapidly and at the same time, in the lateral direction or in the horizontal plane. This act is volitional, being wholly under the control of the will. He seems to be able to inaugurate these movements at any time that he chooses, and stop them accordingly. I have

* Abstract of a paper presented to the Illinois State Medical Society, May.

repeatedly examined the eyes and find no pathological condition. The acuteness of vision, field of vision, range of accommodation, muscular balance, and the color sense, all appear quite normal. Ophthalmoscopic examination is negative. There are no opacities in the refractive media, nor malformation of the globe or orbit that I have been able to discover. The innervation of both the intrinsic and the extrinsic muscles of the eyes appears quite perfect and the patient has no trouble in distant or near vision; being able to use his eyes for long periods of time at close range without pain or inconvenience.

At this juncture I might also mention that the patient can arch the right brow independently of the left, or rather can arch the right brow and draw the left down at the same time. He also can close the left upper lid over the eye without wrinkling the forehead or the skin of the eyelids. Apparently the upper lid falls gently and smoothly down over the globe of the eye, while the right eye remains open. Furthermore, he can vibrate the alæ of his nose very rapidly and move either ear. All of the movements are wholly under the control of the will. The manner and circumstances under which he can vibrate the eyes is worthy of notice. The eyes vibrate or oscillate only in one direction—in the horizontal plane—but he can produce this motion, not only with the visual line in the primary position, but in any secondary position ; in extreme convergence, in extreme divergence of either eye, and in looking upward and downward. The tremor can be kept up during the entire excursion of the eyes (circumduction). The eyes may be made to vibrate when the lids are closed, and also while the patient looks through a 20° prism placed before either eye with its base in any direction. The patient can arch the brow, vibrate the alæ of the nose, and oscillate the eyes all at the same time. The vibration of the eyes can be kept up for about one-half minute; the longest period of time that I have observed it was thirty-five seconds. The feeling in producing this motion is that of a slight pressure behind each eye, pushing or pressing it forward. It is well known that the globe of the eye projects from the orbit about a millimeter in forced innervation of the levator muscle of the lid, generally when the visual lines stand horizontal and parallel to one another. This I have observed in this patient. Ordinarily when he produces these oscillations of the eyes the palpe-

bral fissure is a little wider than when the eyes are opened naturally, the upper lids are a little unsteady, and the eyes slightly protrude. I have never observed any changes in the pupils during the oscillations. As a matter of fact, any object viewed by the patient when the eyes are vibrating has a simultaneous movement.

The modus operandi of these coördinated movements is problematical. Adamuk has established the existence of definite centers of coördination. His physiological experiments show that the centers of coördination for the movements of the eyes lie especially in the corpora quadrigemina. His research has led to the following results:

(a) Irritation or stimulation of the corpora quadrigemina produces symmetrical movements of both eyes.

(b) Irritation of the right half of the corpora quadrigemina produces movements of both eyes to the left.

(c) Irritation of the left half of the corpora quadrigemina produces movements of both eyes to the right.

(d) Irritation of different points of each half of the corpora quadrigemina produce many movements of both eyes at the same time and in the same direction.

(e) Continued irritation of the corpora quadrigemina causes the head to turn toward the same side as the eyes.

(f) Divide both halves of the corpora quadrigemina in the median line, and the motion is limited to the side of irritation.

(g) Upon irritation of the middle of the anterior portion of the corpora quadrigemina, divergent axes immediately become parallel.

(h) Irritation between the corpora quadrigemina posteriorly produces movements of both eyes upward with dilatation of the pupils.

(i) Irritation between the corpora quadrigemina more posteriorly produces upward motion becoming more divergent.

(j) Irritation of the posterior inferior part of the corpora quadrigemina, extending to the floor of the aqueduct of

Sylvius, produces greater divergence, inclination downward, and contraction of the pupils.

(k) Irritation (probably) at the base of the corpora quadrigemina causes a sinking of the line of vision with parallel axes.

(l) Simultaneous irritation of both anterior corpora quadrigemina produces movements such as are observed in nystagmus.

(m) Irritation of the posterior corpora quadrigemina, especially in the middle, produces great dilatation of the pupils, and a horrible expression.

I have been able to verify some of these results in the laboratories of the Illinois Wesleyan University, by the assistance of Professor J. Culver Hartzell, Department of Biology, and Dr. J. K. P. Hawks, Lecturer on Physiology and Hygiene. The experiments were made on the brain of the cat with the following observations: the calvarium being carefully removed, electrical stimulation was applied by means of a fine needle electrode attached to a chloride-of-silver dry-cell battery. The strength employed was from five to eight cells. The point of the needle being introduced into the region of the coördinating centers at different points, and by completing the circuit with the other electrode in contact with the muscles of the neck, responsive movements of the eyes were observed in several directions.

The coördinating nervous mechanism for the complex and carefully adjusted movements of the eye consists essentially of three factors: mechanism for the conduction of afferent, of efferent, and of volitional impulses.

Afferent impulses.—The process which gives rise to visual impulses begins somewhere in the region of the rods and cones in the retina. The impulse is carried backward along the optic nerve to the chiasm, and thence along the optic tract to the three visual centers or the chief endings of the optic nerve in the lateral corpus geniculatum, the pulvinar, and the anterior quadrigeminum. There is possibly a fourth ending in which some fibers pass di-

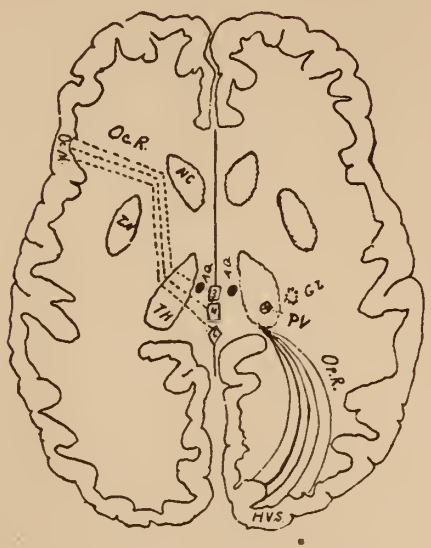
rectly back from the optic tract to the cerebral hemispheres. No doubt the visual impulses are modified in the primary visual centers and pass onward in their course to the higher visual centers of the occipital cortex by means of the optic radiation as crude visual sensations, ultimately to be further elaborated and translated in the realm of consciousness. There seems to be a double connection between the higher visual centers of the cortex and the lower or primary visual centers, the fibers coursing in either direction through the corona radiata.

Efferent impulses.—Coördinated efferent impulses originate in the nuclei of the three nerves supplying the ocular muscles, namely the third, the fourth, and the sixth. The impulse is carried along the nerve to the respective muscle which it innervates.

Volitional impulses.—Volitional impulses in the region of the cortex in some way are concerned in the coördinating movements of the eye. The impulse is carried along the medullary fibers, but the paths of conduction have not been so well determined as in the case of afferent, or of efferent visual impulses.

It is evident that the cortex of the hemispheres is in connection with the coördinating centers for ocular movements, namely the corpora quadrigemina, and also with the nerve nuclei supplying the ocular muscles. We may thus describe a Z tract, the fibers of which extend from the neighborhood of the precentral sulcus—the motor area for the eyes—downward between the caudate nucleus and the lenticular nucleus (probably some fibers pass through the corpora striata) thence through the thalamus to the corpora quadrigemina and to the nuclei of the third, fourth, and sixth nerves. These fibers connecting the frontal cortex with the three ocular nerve centers may be regarded as the "ocular radiation," in contrast with the fibers which connect the occipital cortex with the three primary visual centers, which are known as the "optic radiation." The medullated fibers of the Z tract, con-

stituting the "ocular radiation," are illustrated in the following cut:



N. C., caudate nucleus. L. N., lenticular nucleus. T. H., optic thalamus. A. Q., anterior corpora quadrigemina. G. L., lateral corpus geniculatum. P. V., pulvinar. Op. R., optic radiation. H. V. S., higher visual centers of occipital cortex. 3, 4, 6, nuclei of the third, fourth, and sixth nerves. Oc. R., ocular radiation, or the 'Z tract' connecting the anterior cortex with the nuclei of third, fourth, and sixth nerves. Oc. M., motor area for ocular muscles.

The involuntary action of the eyes is illustrated by the common glance in which an object is suddenly brought into the field of vision in an oblique direction; the eyes instantaneously are directed toward the object. It is further illustrated in the tremulous or oscillating lateral movement of the eyes, which simulates a lateral nystagmus when one looks from the car window of a rapidly moving train at the objects in close range. The eyes vibrate rapidly in the horizontal plane, due to the fleeting images before the retina and the inability to fix them for any considerable time.

Voluntary action is illustrated in the ability to move one eye independently of the other. Dr. J. E. Colburn of Chicago has kindly furnished me with the report of a case which well illustrates the independent voluntary movement of one eye.

Mr. G., aged twenty-eight, an engraver, always used his loop over the left eye and distributed his tools to his right side. He was accustomed, when the loop was in position, to use his graver with his left hand and pick up any tool that he desired, upon the table near him, without changing the relation of his eye to his work. As the result of this overaccommodation and irritation, he had cyclitis in his right eye, first eight years ago, again five years ago, and again two years ago. Each attack was very much protracted, and each one longer in duration than the one preceding. I desired him to use a binocular loop instead of the monocular one which he was accustomed to use, and to break himself of the habit of picking up tools and estimating distances with the uncovered eye in case he used the single eye-piece. He had also acquired the habit of fixing with his left eye and rotating his right eye in any direction that he desired, though not as rapidly and with as steady a movement as he did when the lood was in position.

In this same connection Dr. Colburn mentions another interesting case, showing the power of inhibition, or of volition:

Mary T., aged eighteen, was thrown from a cart in a runaway and sustained some injury to her head. Following the injury she had a rotating nystagmus which she could perfectly control by her will power, and yet, when her attention was unfixed, the movements were continuous and considerable.

The movements of the eyes are not confined alone to electrical excitation in the motor area of the frontal lobe, for movements may be produced by stimulating the occipital cortex in the region of the higher visual centers. In this case the conduction is through the "optic radiation" to the lower centers. In the former, however, the impulse or sensation must travel from the kinæsthetic centers of the frontal cortex to the lower centers along contiguous medullated fibers, which we have already described as "Z tract" or "ocular radiation." In support of this we may note the following as a summary:

1st. In the projection system the anatomy seems to

show the connection between the cortical centers of the frontal lobe with the ganglionic centers of the thalamus, and of these with the nuclei of the nerves of the ocular muscles and also with the coördinating centers.

2d. That the thalamus is an important basal ganglion, not only originating fibers, but also a kind of way-station or internode through which fibers pass to and from the cortex.

3d. In the "Z tract" or "ocular radiation" fibers stream outward from the side of the thalamus. Their course through the thalamus is shown by the transverse markings of the medullary fibers in the anterior, external, and posterior nuclei.

4th. The response in activity of the ocular muscles under the influence of electrical stimulation in the region of the precentral sulcus.

5th. Nystagmatic movements have been produced by passing a probe into the region of the corpora striata and optic thalami.

6th. Incoördinated movements of the eyes are never intimately connected with lesions of the upper and more peripheral parts of the brain.

7th. Cerebral hæmorrhage involving the basal ganglia often produces conjugate deviation of the head and eyes toward the unparalyzed side.

8th. Conjugate deviation of the eyes occurring as a symptom of cerebral lesion in the region of the basal ganglia is usually indirect and transitory, showing a temporary disturbance only in the tract of fibers connecting the cortex with the center of the brain.

EARACHE AND DEAFNESS IN CHILDREN.*

ROYAL S. COPELAND, A. M., M. D.,

Ann Arbor, Mich.

EARACHE is a symptom frequently observed in early life, and one in which there is instant demand for relief. Deafness is a condition more or less fatal to the future usefulness of its victim, and unfortunately is increasingly prevalent. The subject dealt with by this paper then must be of interest, not only to every physician, but to every parent.

Statistics may at the same time prove and disprove any proposition; they are not always of burning interest. But here is a statement from a statistical standpoint that should arrest the attention of every practitioner: Ninety per cent. of the cases of deafness met with in children are due to post-nasal growths. Furthermore, the majority of cases of recurring earache are, in my opinion, a result of the same cause.

If these statements are based on fact, the practitioner of medicine who neglects to examine the post-nasal space of patients suffering from earache or deafness overlooks the probable seat of the trouble and renders himself liable to a charge of malpractice.

Certain infectious diseases, particularly scarlatina and measles, especially if adenoids be present, are prone to attack the ear, and, on departing, to leave behind lasting reminders of their visit. Teething, too, is responsible for many attacks of earache, for setting up an inflammation of the middle ear which results in deafness, and sometimes

* Presented to the American Institute of Homœopathy in Cleveland, June.

for death itself from an extension of a suppurative process from the middle ear to the meninges of the brain.

To account for the seriousness of otitic inflammation in early childhood one must not forget the anatomical conditions of that period. The bony plate, which in adult life separates the middle ear from the brain, has not yet developed, and the only protection to the meninges is a layer of mucous membrane. Naturally, then, earache at this early period portends the possibility of serious results.

Having in mind the dangers of disease of the ear, and knowing the causes responsible for the majority of such cases, our professional duty is as plain as day. The purpose of this paper, then, is to call special attention to the one condition, adenoids.

During the past decade so much has been written and spoken on this subject that it ought to be unnecessary to say more. It is a sad commentary on medical practice that overlooked adenoids are almost as frequently met with to-day as they were five years ago.

The very face of the adenoid victim pictures the disease. One can gaze over the primary department of the public schools and at a glance select the adenoid patients. In spite of the unmistakable features of the disease it is overlooked or unrecognized, time and time again. "The face is long, the point of the nose is pinched, the lower jaw hangs down, the mouth is open, there is often lateral narrowing of the alveolar arch, high palate and prominence of the upper incisor teeth, which tend to approach one another posteriorly; the upper lip projects away from the teeth, the inner canthi of the eyes are drawn downward, the eyebrows raised, while the obliteration of the natural folds of the face gives the patient a stupid, vacant, semi-idiotic expression." Such is the graphic picture of the adenoid victim, given by a recent writer.

Snoring during sleep, flatness of the voice, nasal occlusion, "snuffles," occasional earache, and oft-recurring deafness give certainty to the diagnosis. This is absolutely confirmed by passing the finger back of the soft palate into

the naso-pharynx. The post-nasal space is found filled with a mass which feels like angle-worms.

It may not be too much of a digression to mention the nocturnal enuresis, the night terrors, the failure of mental development, the liability to tubercular infection of the cervical glands, the asthma, convulsions, and other conditions which result from untreated adenoids. Certainly, enough has been said to direct attention to the chief cause of earache and deafness of children.

In the treatment of these conditions the first indication is the removal of the adenoids. Methods of operation are familiar to all. Every physician has at least an index finger, and if he possess no other means of operation he has at his command a method of removal which in many cases is quite as satisfactory as Gottstein's curette or Schütz's adenotome. Thorough removal is the rule, and free hæmorrhage from the throat and nares is the test of thoroughness.

The evolutionist claims that the removal of adenoids renders the race more liable to the condition, and predicts a marked increase in deafness on this account. This theory, I suppose, is based on the belief that the removal of the adenoids improves the health and well-being of the individual and leaves him more likely to propagate the race. He survives with the fittest. Instead of failing in health and dying off, thus freeing the human family from the taint of adenoids, the surgical removal of the growth saves the individual but inflicts the condition upon the offspring.

Personally, I am not prepared to accept this theory. However, in some families there does appear to be an underlying tendency to hypertrophy of the lymphoid tissue. Here it is that the homœopathist has an opportunity to demonstrate the superiority of his system of practice. The remedies which cover the underlying diathesis will correct the tendency to the development of adenoids.

The special topic given me does not permit long discussion of these remedies, but I desire to call attention to

four, viz.: calcarea phosphorica, sanguinarin nitrate, fluoric acid, and æsculus hippocastanum. So far as I know, public attention as to their possible value in this condition has never been called to the last two. They are worthy of study, and will be found useful in this connection.

For the earache itself it is unnecessary to outline any system of treatment. Every physician has his favorite method of cure. Removal of the adenoids, if done before the deafness has long persisted, will remove the obstruction from the Eustachian orifice and of itself be quite sufficient, in most cases, to restore the hearing.

The use of the air bag and Siegle's speculum, or some form of vibratory massage will complete the cure.

Your essayist is quite content if he has said enough to set some mind to thinking about an unrelieved case of earache and deafness in a little child, and to wondering if an adenoid throat has been overlooked. He fully realizes the frailties of human nature, and is ready to accept criticism for some of his mistakes, if perchance he may be permitted to scold a little about the mistakes of his fellow practitioners.

In conclusion, therefore, let me beg of you to examine the pharyngeal wall of every patient suffering from earache or deafness.

46 Catherine Street.

THE TREATMENT OF ASTHMA AND PAROXYSMAL SNEEZING.

HAL FOSTER, A. B., M. D.,

Kansas City, Mo.

SUMMER always brings with it more or less nasal disease. In a few weeks sneezing will be heard and patients with so-called hay fever will be seen all over the land. During the last decade this subject has attracted the earnest attention of students, both in the chemical laboratory and in the clinic. The public, including many physicians, think nothing can be done for this disease, and that it is time and money wasted to even try.

If the patient has means he is usually advised to go to the mountains or seashore until the harvesting season is over. In our cities there is always a great army of people who have to earn their daily bread and are unable to leave their post of duty. They have to work and sneeze. It is for this class I write.

The physician must endeavor to help them because they are not able to seek mountain or sea air.

It is nearly always the rule to find some pathological condition existing in the nose; either an anterior or posterior turbinated hypertrophy; occasionally polypi, enchondromata or exostosis of the septum. Operative interference to restore free nasal drainage and respiration in such cases proves greatly beneficial. The relief of the sneezing and excessive flow of mucus is of prime importance to these cases. The patients present themselves with a well-marked hay asthma, dryness of the throat, hoarseness, sneezing

every few minutes, complete nasal obstruction, and unable to sleep at night. They are almost in a state of nervous exhaustion during these attacks. They will tell you that for years, about August 6 to 15, the attack is ushered in. In this locality no two seasons are exactly alike. Some seasons are very hot and dry, while others are moist.

The condition of the nose should be determined and all abnormal conditions at once corrected. There can be no doubt that the dust has a great deal to do with the cause in Missouri and Kansas, where the winds are almost constantly blowing during the summer months.

Several months ago Dr. Bishop called our attention to uric acid as a factor in this disease, in a most excellent paper. In my experience uric acid is one of the prime factors in the cause of this disease. When the system is charged with it such patients are exceedingly apt to take cold.

In this locality people work very hard during the day. On going to their homes, after supper they sit out on their lawns, very thinly clad, until 10 or 11 P. M. During these hours the air gets cooler and sometimes is damp. Many colds are taken during this time, also, sleeping in a draught at night. The great majority of such patients take little exercise, and are constantly in a great rush attending to their daily duties. Being more or less run down, and with the existing atmospheric conditions prevailing in Missouri and Kansas in July and August, there can be no surprise that colds are so very common during that season. The ragweed no doubt causes nasal irritation also.

This season of the year these patients contract cold on the least exposure, as many of them are dreadfully sensitive to the slightest draught. It is my rule to place the patient on anti-uric-acid diet, or as near so as possible. Any digestive impairment should be corrected, also defective elimination either of the skin, kidneys, or bowels.

Dr. Haig, in his most excellent work, called our attention to this subject. The *Uric Acid Monthly* has also dwelt at

some length, in several articles, on asthma caused by uric-acid poisoning.

Working all day, sneezing and unable to sleep at night, these individuals are pitiable to behold. They are nervous and discouraged. These patients need to be encouraged by their friends and the physician in attendance.

Most of them are more or less constipated, consequently I give them a teaspoonful of thialion in hot water, three times a day. In case that quantity proves too much, the dose is reduced to suit the person. They should take a cold sponge bath immediately on arising in the morning, followed by a good hard rubbing with a towel. Flannel should be worn next to the skin the entire year. The lower limbs should be well protected, and the feet should be kept warm and dry.

Some form of outdoor exercise should be indulged in, such as bicycle riding, lawn tennis, boating, walking, horse-back riding, or, in fact, anything that hardens or strengthens the muscles.

The use of alcoholic stimulants and tobacco should not be allowed, at least during the attacks; better still, not at all.

I have spent summers in the mountains of Colorado, at the seaside, and along the lakes; at all these places I have met patients with this disease. Much can be done to prevent these attacks in this climate by preventing cold-taking and such a diet as to prevent uric acid forming in the system.

Patients are willing to take any quantity of medicine the physician may elect to prescribe, but when you talk of diet to such patients, you will find it well-nigh impossible to make them follow your injunctions in this all-important subject.

It is not always necessary to reduce the nasal obstructions by electricity. This can be done by chemicals. The parts are very sensitive, and local anæsthetics should always be used before the growths are removed, in order that the patient may not experience any pain or unnecessary shock to the already tired nervous system.

Fresh fruits and vegetables and a copious quantity of water may be allowed. Recently, Dr. H. Curtis of New York had Fraser make a fluid extract of ragweed with aromatics, which he named "Liquor Ambrosia." He would immunize the patients by giving them this drug.

It has now been used a great deal by the profession. I have not been able to get any very good results from its use, and many other physicians have had similar want of success.

In acute attacks I use a mild spray or applications of supra-renal capsule. Adrenalin, applied directly to the parts once a day, will give prompt relief. When the asthma keeps the patient from sleeping I use small doses of heroin, which seems to give relief by greatly allaying the cough and asthmatic conditions.

The frequent application of hot salt gargles keeps the mouth clean and proves very grateful to the patient. Five grains of blennostasine, administered at night, will aid to keep the nose open during sleep. Antiseptic ointments should be used in the nose every hour. The surgical treatment consists in correcting all abnormal conditions. Free respiration and nasal drainage should be established.

Under no circumstances should sprays containing cocain be given these patients.

This trouble is found where hay is not grown. Dust is a great factor in its cause. The patients should be informed of the nature of this trouble and encouraged. As a rule they are morbid.

The nose should be examined before the attack comes on and placed in as normal a condition as possible. By great care, and the rigid use of diet and exercise, a great majority of these patients can be very much benefited and a large number cured.

Altman Building.

DEVELOPMENT OF THE ORGANS OF HEARING.

Notes taken upon the explanatory remarks accompanying the extensive collection of lantern illustrations exhibited at the Sect. of Lar. and Otol. of the Amer. Med. Assoc., June 11, 1902, Saratoga.

C. R. HOLMES, M. D.,

Cincinnati, O.

MINUTE investigation of the anatomy of the earth's living creatures demonstrates that the lowest form in which we find the acoustic sense is the jelly fish, in which the organ of hearing consists of merely a depression on the surface of the body, at the lower portion of which is distributed a sensitive tissue corresponding to the *membrana tectoria* communicating the sensation of sound. The next stage of development is when the above depression becomes a sort of sac which allows the surrounding media (which in case of these animals is water) to enter the cavity, an example of which is the clam. The next step in the scale is the mollusca, where a rhinolith is found within this cavity, such as the squid. It was found in some of the crustacea that the ear organ is thrown off every time it sheds its coat, and each time it takes into this sac a rhinolith from the surrounding media. This was proved by placing these animals in distilled water at time of changing of skin, in this case no rhinolith was found; then others were placed in distilled water to which had been added a few uric-acid crystals, in these a minute uric-acid crystal was found in their ear sac. Now comes the mosquito with an entirely different hearing apparatus, consisting of the upper antennæ armed with innumerable hairs

which are apparently the extremities of the auditory nerve, different ones of which vibrate for certain notes and certain directions of sound waves. It should be noted here that the sensitive tissue on the wall of the depression or sac-like ears corresponds to the terminal filaments of the auditory nerve.

The fly has a sac filled with fluid containing an otolith and covered by a membrane corresponding to the membrana tympani or that of the oval window, it is situated in a nodule set on a pedicle behind the wing. In the grasshopper a similar apparatus is found in some species in the lower joint of the abdomen, and in others in the lower joint of two of their front legs; while in the locust to the above arrangement is added a muscle resembling in function the tensor tympani.

When we come up to the vertebrates a long stride is made in the addition of an internal ear in the form of the semicircular canals—an example of the lowest in this class is the hay fish, which has one semicircular canal; second, the eel, having two, and third, the thornback, ray, or skate, which possesses three.

As we ascend the scale the next more perfect development is the combination of a genuine membrana tympani, ossicles, and Eustachian tube, found generally in the amphibious animals, of which the frog is a good specimen.

In birds to the above is added a simple cochlea, in the form of a straight cone situated in a horizontal position.

While, lastly, in the mammalia the auditory apparatus assumes the perfect form, the cochlea becoming convoluted and the concha being appended. But the number of ossicles and the relative size of the different parts of the ear vary greatly, in accordance with the different requirements expected of it. In the Greenland whale the semicircular canals are very small indeed, in proportion to the cochlea.

The exhibit was closed by several pictures of sections of the human ear taken in all planes.

SYMPOSIUM.

Should the Fear of Sympathetic Ophthalmia To-day Outweigh Saving with Ice and our Modern Treatment an Eye which is Seriously Wounded in the Ciliary Region?

HERMAN KNAPP (New York City): In the vast majority of adults, I should say no; in children, with great precaution. The word "serious" is elastic. Ice for me is a remedy of the past in the treatment of aseptic wounds. "Our modern treatment" of wounds. What is it besides asepticism, coaptation, and rest?

SAYER HASBROUCK (Providence, R. I.): If useful vision is, or probably will be, lost as a result of injury, I believe that the injured eye should be removed at once. If the injured eye still has good vision and you have good reason to believe that the wound is aseptic, that the instrument or whatever caused the injury did not carry septic matter into the wound, I believe we are justified in trying to save the eye by antiseptic treatment and ice, and I also believe ice is best used with ice-bag, being sure that the bag is as near aseptic as possible, as I do not believe ice compresses are always aseptic.

By modern treatment I take it that you mean antiseptic methods. If these methods cause the wound to heal without undue inflammation, I think the chances are fairly good that we will not have sympathetic inflammation.

But there are so many ifs in cases of this kind, that I still believe the ophthalmic surgeon should make the case clear to the patient and his friends and assume no more personal responsibility than necessary himself. For, when once true sympathetic ophthalmia sets in, our hands seem to be tied.

It should be borne in mind that so-called sympathetic irritation is not true sympathetic ophthalmia.

M. A. Brandt (Milwaukee, Wis.) : In my opinion every effort should first be made with ice and all modern methods of treatment to save an eye which is seriously wounded before resorting to operative measures. In the majority of cases sympathetic ophthalmia can be detected sufficiently early, so that operative measures may be resorted to without the loss of the sympathizing eye.

Howard F. Hansell (Philadelphia) : I seldom advise enucleation for injuries to the ball, unless (1) There is no hope of saving vision or a sightly ball ; (2) The ball contains a foreign body that cannot be extracted.

Geo. E. Malabay : General practitioners are always conservative. Much would depend upon the character of the injury, especially the nature of the infection, should the wound be infected.

Fred D. Lewis (Buffalo) : I think it is the duty of the physician to save an organ if possible, no matter how much damaged. With modern treatment the danger of sympathetic ophthalmia is very slight, and if watched closely the injured eye can be removed on the slightest symptom of the good eye being affected.

D. A. Kuyk (Richmond) : I advocate the employment of all possible methods to save the injured organ before proceeding to its enucleation, believing that many eyes can be saved by conservative treatment. We can always enucleate upon a moment's notice, in the event of the occurrence of sympathetic irritation. The treatment employed should be both local and constitutional, pushed without intermission to the fullest extent of the patient's endurance. When, however, the injury is due to or produced by a penetrating foreign body which cannot be readily removed, I think enucleation is not only justifiable but absolutely indicated to preserve the integrity of the sound eye.

Chas. W. Collock (Charleston, S. C.) : In recent cases that I can see every day I attempt to save every eye that has been wounded in or near the ciliary region, unless the destruction has been so great that there can be no doubt that removal of the ball is the only proper procedure. Many eyes that have received serious ciliary wounds recover with useful vision or good appearance, and the indiscriminate removal of eyes so injured is, I think, a practice well-nigh obsolete.

Wm. H. Dudley (Easton, Pa.) : This depends much upon the character of the wound and its extent, the age of the patient, and the condition of the eye when seen after the injury ; also the social status of the patient. In a young mechanic who cannot be followed up and a careful watch kept of its fellow, the eye should be removed, but in many cases where the injury is not extensive and the patient can be watched carefully over a considerable length of time, conservative measures may be used.

W. F. Mittendorf (New York City) : It depends entirely upon the extent of the injury.

M. Peyn Porcher (Charleston, S. C.) : I would answer unhesitatingly no. Nothing would excuse the neglect of the conservative treatment in any wound of the eye.

Geo. Strowbridge (Philadelphia) : It should not. The risk of sympathy is so small that every effort should be made to save the injured eye.

Wm. A. Beggs (Newark, N. J.) : Modern treatment will frequently save an eye,—the fact that it will not always do so should not deter us from being conservative.

The following physicians reply "*No*" :

Fridenberg (New York City) ; L. B. Grady (Nashville, Tenn.) ; A. A. Cannaday (Roanoke, Va.) ; E. F. Reamer (Mitchell, So. Dak.).

Linn Emerson (Orange, N. J.), says "*Yes.*"

ABSTRACTS FROM CURRENT LITERATURE.

Ear Complications and Sequelæ of Influenza.—M. A. Goldstein.—*The Lar.*, March, 1902.

The author recapitulates : 1. Epidemic or endemic influenza is the ætiological factor in this affection. 2. A careful differentiation should be made between simple otitis media and influenza otitis. 3. Free incision of the drum membrane at the earliest indication of effusion into the tympanic cavity should be

made. This free drainage should constitute the most important principle in the treatment of this affection. 4. A guarded prognosis should be given, especially as concerns the complete restoration of hearing. 5. Conservatism is urged concerning operative interference where mastoid symptoms appear, as many of these symptoms are accompaniments of influenza and should be regarded as neuralgias rather than evidences of suppuration.

A. W. P.

Dionine.—M. Davies.—*Clinique Ophtalmique.*

Its properties are analgesic rather than anæsthetic. For the latter use it is inferior to cocain, but its analgesic action has the very great advantage of being of long duration and being prolonged indefinitely. When used as a collyrium or for subconjunctival injection, it gives marked and lasting relief. Added to this, its indisputable stimulating and antiseptic action, which it exerts equally on the nerve terminals of the cornea conjunctiva and uveal tract, forces the conclusion that Dionine is one of the most valuable remedies which modern chemistry has introduced to our therapeutic storehouse.

Because of these properties Davies finds use for it in

(1) All cases of severe iritis, iridocyclitis, ulcers of cornea, keratitis, glaucoma.

(2) Cases where it is necessary to stimulate the tissue nutrition, accelerate the absorption of pupillary exudates in hæmorrhages, to favor mydriasis, to combat iritis following cataract extraction and post-operative infection. The solution prepared is two per cent.

E. R. F.

Thiosinamin in Ear Diseases.—Joseph C. Beck.—*The Laryngoscope*, June, 1902.

First known to Berzelius in 1828, and first used therapeutically by Hans v. Hebra in 1892. Is a derivative of ethereal mustard oil. Formula C_4 S. N_2 H_8. Colorless prisms, melting at 74° C., bitter taste, garlicky odor, easily soluble in water 2 and alcohol 1 part.

Summing up the chemical and physiological investigation we observe that (1) The introduction of the drug in the usual doses is not harmful (Von Hebra). (2) That we cannot expect any bactericidal action from the drug (Van Hoorn). (3) That the drug produces slight tonic effect, due to the slight increase

of hæmoglobin (Richter). (4) That the lymph elements and their changes on administration of this drug will be of great therapeutic value.

It is administered usually hypodermatically, although used *per orem.* Hypodermatically from a 2 to 15 per cent. solution in water or water and alcohol, from 5 drops to a dram per dose, about twice a week. Internally 1 to 3 grs. crude drug.

The various diseases in which thiosinamin was used are as follows:

Lupus, scleroderma, psoriasis, enlarged lymph glands, scars causing contracture, keloids, hard scars after healed syphilitic ulcers, strictures of the œsophagus and urethra, muscle and tendon contractures, fixed uteri following perimetritis, chronic articular rheumatism, leukoma corneæ, ectropium, choroiditis disseminata exudativa, cataract, strictures of the Eustachian tubes with secondary middle-ear disease.

My observation in treating these fourteen cases is as follows:

First, that the injection of thiosinamin without mechanical treatment did not improve the condition, except to relieve the tinnitus some. Second, that with the aid of electrolysis and injection of thiosinamin the simple bougie could be passed with much greater ease, and inflation was much easier after a short time than I experienced in cases without thiosinamin or electrolysis. Third, that all the cases treated with thiosinamin and electrolysis improved in the time from two to eight months in all respects—hearing, tinnitus aurium, general condition, etc. Fourth, that before using the thiosinamin careful inquiry should be made for possible contra-indications for its use, such as co-existing chronic tuberculosis, and malignant tumors. A. W. P.

The Diagnosis and Treatment of Malignant Stricture of the Œsophagus.—Chas. J. Symonds.—*The Jour. of Lar., Rhin., and Otol.*, September, 1902.

I may summarize the diagnosis in the following way: 1. Among early symptoms we may base so-called "dyspepsia," nausea, and repulsion of food; pain alone when the central district is affected. 2. That the passage of the bougie is the only way to clear up the case, and that its employment need not be feared. 3. That the extra-œsophageal disease rarely gives rise to serious dysphagia. 4. That spasmodic obstruction, apart from the hysterical form,

has always, when decided, an organic cause, and that this would be better called intermittent dysphagia. 5. That with regard to the three special districts it may be said: (a) That all organic obstruction in the upper third is malignant, and has a special tendency to cicatrize. (b) That in the central half of the gullet, a sarcoma or a myoma, both rare diseases, may cause fatal obstruction ; and here, also, a pouch may give rise to difficulty in diagnosis, but can generally be excluded. (c) That in the lower end alone does simple stenosis occur, and that here there may be difficulty in distinguishing from cancer of the stomach causing great reduction of the cavity (leather-bottle stomach). Finally, that in estimating the extent of the disease, the special value of the steel bulb is noted, and also the use of the coudé bougie in obstruction at the lower end.

Summary of Treatment.—1. In circoid obstruction the long rubber tube gives excellent results. When not well borne, gastrostomy, if selected, should be performed daily. 2. In disease of the central portion the short tube is serviceable in a fair number of cases, and, when it acts well, is superior to any other method. It must be replaced by the long feeding tube when pulmonary symptoms arise. 3. In disease of the cardiac orifice tubage is so uncertain that gastrostomy should be performed when dysphagia becomes serious. A. W. P.

On Treatment of Deafness of Middle-Ear Origin.—Chalmers Watson.—*The British Med. Jour.*, March, 1902.

A preliminary report of twenty cases of non-suppurative middle-ear disease (O. M. C. C.) with myelocene. McBride and Logan Turner of Edinburgh observed these experiments and concur in report. The mode of treatment consists in instilling into the ear ʒ ss of equal parts of warm rectified spirits and glycerine, and in applying the same quantity to the skin of and around the ear. This was followed by a similar application of myelocene, ten drops being the amount used internally. This treatment was repeated every night for six nights.

The mode of preparation is as follows: The marrow is extracted with ether, and the ethereal solution is evaporated down at first in the open, and later over the warm bath. The fat is then rubbed up with one per cent. chloretone for preservative purposes. It now appears as a whitish or faintly yellow fat with

a strong odor, partly of ether, partly of chloretone. The melting point of the fat so obtained varies very widely.

Summary of Results.—Of the twenty cases treated four were of a mixed type, the tuning-fork conduction being greater by air than by bone. One case was of post-suppurative origin. The results may be summarized as follows: Of the fifteen cases of apparently pure dry middle-ear disease eleven showed a record of improvement fairly comparable to those already detailed, due allowance being made for the different degrees of deafness when the patient first came under observation.

Two showed a marked improvement in one ear only, but as this improvement took place in the deafer ear, the practical benefit was slight; two cases, male patients, aged forty-six and sixty respectively, were quite uninfluenced by the treatment. Of the mixed cases, three showed a practical improvement and one did not. The post-suppurative case improved. In some cases the improvement has been fully maintained, as in Case II., in others deterioration has set in slowly, and has progressed, as in Case I. Observations are at present being made on means of maintaining the improvement in the hearing power. A. W. P.

SOCIETIES.

BRITISH MEDICAL ASSOCIATION, SECTION ON LARYNGOLOGY. Seventeenth Annual Meeting, Manchester, July 29 to August 1, 1902.

Direct Endoscopy of the Upper Air Passages and Œsophagus. GUSTAV KILLIAN, Freiburg i. Br.

Remarkable progress in this direction has been made lately, to wit, "the laryngoscopic examination with the head of the patient well bent forward; secondly, median rhinoscopy; and thirdly and principally, the direct methods which are based on the recognition of the fact that we may penetrate in a straight line into the air passages and œsophagus without damaging those organs."

The œsophageal probe and X-ray are not always reliable because the first passes along posterior wall—therefore body in anterior not sure of detection. With the latter the shadow of the vertebral column may hide the object. This method of examination was

first attempted by Kussmaul in 1868. By it not only the object is discovered, but its mode of impaction and condition of the œsophageal walls, whether eroded or inflamed. This is of especial value in cases of an object in a case of œsophageal stricture.

Similar methods.—Tracheoscopy and bronchoscopy have lately been used. With the aid of 25 per cent. alcoholic solution of cocain in adults or general anæsthesia in children, a suitably shaped straight tube may be passed into the trachea and by deft manipulation into either bronchus, without injury to the tissues. A preliminary injection of morphine in addition is a great help. The author does not use " mandril " or finger as guide for introduction, but introduces " under the guidance of my eyes," looking continuously through the tube and finding my way gradually through the pharynx and larynx into the trachea and bronchi. Pioniaczek examined by means of tube introduced through tracheotomy opening. The elasticity of the walls of the air tubes and the softness of the tissue in which they lie make it possible for these tubes to conform themselves to the straight line of the examining tube. For these procedures Kirstein's forehead lamp is best adapted, and for demonstration Kaspar's handle is most useful. When examining bronchus which is obstructed with a foreign body, the examining tube (or bronchoscope) should be provided with an opening on the side to allow ingress of air into the opposite pervious bronchus. For extraction from the bronchi long tubal forceps and Lister's blunt hook are most useful. " Extraction was attempted in fifteen cases, and succeeded eight times in upper and five times in lower bronchoscopy.

Case I.—Woman, fifty-two years, toothplate tightly imbedded in œsophagus thirty-five cm. from incisors, therefore near the cardia. Examination two months after entrance of body in gullet, sundry attempts at extraction had been made previously. Author cut it in three pieces with galvanic snare, then removed with forceps.

Case II.—Child, six years. By aid of direct laryngoscopy (Kirstein's autoscope) a gold collar stud was located and removed by means of a hook, after other unsuccessful attempts had been made otherwise. Patient previously tracheotomized.

Case III.—Man, sixty-three years, swallowed piece of bone in soup. Could discover nothing by laryngoscope because of an anomalously curved trachea. Under cocain introduced tube

9 mm. diameter, 25 cm. long, and discovered bone in right bronchus and with aid of forceps removed it.

CASE IV.—Boy of four years got a bean in larynx, but impossible to remove with assistance of laryngoscope; dypnœa necessitated tracheotomy; bean then coughed up, but fell back into right bronchus; with bronchoscopic tube and hook it was removed with difficulty because it had swollen (18 mm. × 10 mm.).

CASE V.—Four years after a bone got in right bronchus of a man forty-two years old and several unsuccessful attempts had been made at extraction, the author removed it by method above described.

CASE VI.—A bean which broke in several pieces during the process of extraction was finally removed with a blunt hook.

CASE VII.—A collar stud became impacted in the left bronchus with the inner larger circular surface upward, thereby completely filling the lumen of the tube. The third attempt to remove it by lower bronchoscopy, which was made after tracheotomy, was successful. The very copious mucous discharge, 200 to 300 c. cm., interfered with the manipulation.

Coolidge (Boston), Von Schroeter, Wild (Zurich), J. A. Killian (Worms), and Hajek (Wien) have reported similar difficult cases.

A Discussion on the Diagnosis and Treatment of Foreign Bodies in the Upper Air Passages and Gullet. JOHN MACINTYRE.

Advance in this line, of late, is principally in direction of diagnosis, modes of treatment are about the same. This advance is (1) in the methods of ocular examination, bronchoscopy, and œsophagoscopy, and (2) the utilizing of the epoch-making researches in radiant matter, electric and other waves in ether, X-rays, etc.

The success of X-ray examination depends greatly upon the operator's practical acquaintance with the pictures of the normal part as seen on the fluorescent screen or on the negatives, as well as the pathological conditions; also the application of the principles underlying the differentiation of objects of different density. The author recommends the rotary form of mercury interrupter and the Wehnelt, Queen's, or Müller's tubes, with arrangements for changing the vacuum and keeping it the same for a period. The above with strong current, under thorough control, one can

arrange to recognize different densities of tissue or objects themselves.

The author minutely describes a strong electro-magnet and sundry-shaped points for use in different cavities which he had devised. With this instrument the speaker has removed metallic objects from the nose, pharynx, and larynx, and through a tracheotomy tube from the trachea; but has had no opportunity to experiment on the bronchi which he thinks he could reach through a tracheotomy tube. Still, "it is only fair to speak of its possibilities. Although it exerts great power when applied to large paramagnetic bodies, still its influence diminishes greatly when applied to small surfaces of metal. Further, its magnetic power diminishes very rapidly as the distance from the foreign body increases, and lastly bodies must be free to move within the cavity."

Then the writer describes his electro-œsophageal probe, which is an instrument like an electric bullet probe adapted to the œsophagus, and is connected with a telephone attachment instead of a bell. The foregoing, as also some subsequent clinical reports, were illustrated by lantern projections.

Lantern Demonstrations of Foreign Bodies Lodged in the Air and Food Passages. WALTER DOWNIE.

Pictures of many foreign bodies coming under author's observation.

Discussion.

W. THELWALL THOMAS: A general surgeon thought the finer methods of the diagnosis unnecessary. Preferred œsophagotomy for rough or angular objects.

DR. WILD (Zurich) related case of a toothplate 5 × 2½ cm., which was unrecognizable by X-rays, but found and extracted with the aid of lower bronchoscopy. Thought if the adventitious body was sharp like a pin and the point upward the magnet might be dangerous, as it might pull the object into the mediastinum.

A Case of Papillomatous Excrescences, or *Ozænic Incrustations*, or *Chalky Deposits*, or *other Lesion low down in the Trachea.* EDW. LAW.

A woman, thirty-six years, had ozæna since childhood; recently lost her smell. Paternal uncle died of cancer of throat; maternal

uncle, of cancer of stomach. For eighteen years has had cough from irritation low down in trachea. Slight loss of taste, no dyspnœa or expectoration, and general health good. At present no atrophic changes in nose, pharynx, or larynx, but a crust on Luschka's tonsil. Below the seventh ring of trachea was seen condition described by title of article. At the London Laryngological Society Dr. Waggett diagnosed it a papilloma, while Dr. Lack and Felix Simon thought it crusts in the the trachea.

Discussion.

Jobson Horne thought it could not be crusts, because there seemed to be no underlying cause for such, but might be cartilaginous excrescences from the rings, calcareous deposits, or papilloma, most likely the first.

Dr. Macintyre had examined patient long before in Glasgow, and noticed that appearance of condition changed at different times.

Upon subsequent examination by Professor Killian, with aid of bronchoscope and sounds, the condition proved to be calcareous deposits.

A Simplified Method of Operating for Deflection of the Cartilaginous Septum. Dundas Grant.

Consists in a combination of the operation described a little while ago by Moure and the retention of defection by transfixion pin, as used by Roberts some fifteen years ago. "1. Cocainize both sides of septum. 2. Straightening and transfixing with the needle. 3. Administration of nitrous oxide gas. 4. Cutting through the cartilage by means of Moure's shears, horizontally below the deflection, then obliquely in front of it and above it parallel to the ridge of the nose, the incisions not meeting below and in front. 5. Manipulating the cartilage at the incisions, so as to encourage overriding. When deflection accompanied by any considerable thickening it should be removed, preferably a couple of weeks previously.

Chronic Laryngitis; Correlation of Diagnosis and Treatment. N. C. Haring.

These cases may be divided into: 1. Systemic. 2. Due to or associated with nasal disease. 3. Independent of nasal disease.

1. Systemic, in connection with valvular disease of the heart, cirrhosis of the liver, alcoholism and gout, etc. These cases are not local but part of a large lesion, which must be treated and very little special attention need be given to the larynx.

2. With nasal disease, which may act in three ways. By extension of the catarrh by continuity of surface, by irritation set up by discharges, by mouth-breathing caused by nasal obstructions.

It is impossible to be sure whether the nasal disease is the cause of the laryngeal lesion or only co-existent; consequently, in all cases the first indication is to treat the nasal lesion thoroughly. In a small number of cases the inflammation is limited to the larynx.

AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOLOGICAL, AND LARYNGOLOGICAL SOCIETY. Fifteenth Annual Meeting, Cleveland, O., June 16, 17, and 18, 1902. Reported by Drs. H. Chapman and W. H. Phillips, of Cleveland.—(Continued from p. 281).

F. D. LEWIS reported *A Case of Sarcoma of the Septum*, removed with cold snare. Tumor was pedunculated and bled profusely; no return to present time.

Discussion.

A. W. PALMER reported that there had been no recurrence in the case of angio-sarcoma of the pharynx treated with erysipelas toxin and bacillus prodigiosus which he reported to this society, two years ago.

In a paper on *The Middle Meatus and Middle Turbinate* HERBERT W. HOYT cited four cases of hypertrophy of anterior end of the middle turbinate, and adhesion to nasal septum, with marked reflex symptoms, hay fever and asthma. Advises removal with snare or scissors. In hay-fever patients examine the middle turbinate carefully.

GEO. F. BAGBY, in an article on *Adrenalin—Its Advantages and Disadvantages*, said that this had been very satisfactory in nose work, used in solution of 1–2000 to 1–10,000.

Its disadvantages are that it destroys the color of the membrane, is not an entirely stable product, and occasionally provokes

troublesome sneezing. Sloughing and secondary hæmorrhage, especially of the persistent oozing type, may follow.

Discussion brought out that it was of great value in acute frontal sinusitis to open up the infundibulum.

Dr. Copeland uses it to enhance the action of cocain in eye.

Dr. Rice injects it into the tissue when operating for harelip and cleft palate, rendering the operation nearly bloodless. He has seen no bad effects resulting therefrom.

Dr. Campbell made use of it in removing a tightly impacted foreign body in the ear.

E. L. Mann, *The Ear and Throat Complication of La Grippe.* The author believes influenza is by far the most common cause of middle-ear and mastoid diseases, and the attacks following grippe seem to be especially virulent in type. The milder attacks of grippe seem to be complicated by ear diseases oftener than the severe. In the early stages, during the acute naso-pharyngitis with tube blocked and ear feeling full, do not inflate. Our treatment should be one of masterly inactivity. During later stages, when effusion has formed and ear is discharging, treatment should be more active, but even here suction should be preferred to inflation to remove discharges.

The various sinuses, especially the frontal and ethmoid, may become involved during prevalence of grippe. Secure drainage if possible by cocain, and adrenalin chloride if necessary.

The Preventive Treatment of Colds, Orrin L. Smith.

Remove pathological condition of nose and throat. Lavage of nose and throat should follow exposure, if our germ theory be correct. If nose and throat examination is negative, the case should be referred to the general practitioner, for renal or gastric affections, or proper hygienic treatment. The soles of the shoes should be of cork or gum, and underwear should be part cotton and part wool. Muffler and chest protector are condemned, and salt-water bath, with after-friction, is be recommended.

Simple Glaucoma, by C. J. Swan (Chicago), was the title of the next paper. He said the prognosis was always unfavorable. does not believe it is of frequent occurence judging from his

experiences, and operations are not at all hopeful, yet his experience leads him to think bad results are partly due to faulty diagnosis and technique.

Of symptoms the most important is the increase of tension, also narrowing of the field, excavation and atrophy of nerve, sluggish pupil, and halo. It is sometimes difficult to distinguish from large physiological cup or atrophy of optic nerve, but the tension shows the difference. The tension is the dangerous factor. The operations used are sclerotomy and iridectomy. Iridectomy is surest, as it opens up the spaces for the fluids to drain off. The segment removed should be $\frac{1}{5}$ to $\frac{1}{2}$ of the whole iris, made with a radial cut of the scissors, then torn from the roots by forceps. This is easily done, as the iris is thinnest at the root. Operation is indicated if vision is not less than $\frac{20}{40}$; if the field is not less than size of silver dollar on ordinary chart; if pupil responds to myotics, and if myotics decrease tension. If, on the other hand, vision and field are less than given, or pupil and tension not affected by myotics, an operation gives little hope of success. The tension is the most important symptom, and several examinations should be made at different times of the day. In simple glaucoma tension may be present for short periods only, then, as the disease becomes more chronic, tension increases. An operation should not be done on sound eye too soon. It may hasten the disease which might have been years in appearing. Then, if an operation is good in preventing, it ought to be good after onset. The disease is not always bilateral.

Case I.—Strong woman, fifty years old, blind in left eye some months, pain in it once for a short time, right vision failing, increased tension, large sluggish pupils, anæsthesia of cornea, anterior chamber shallow, halo. L. V. = o; R. V. = $\frac{20}{50}$. Urinalysis negative, fundus in left cloudy on account of lens. F. V., contracted. Operation nicely finished, thirty-six hours later the eye was stone hard. Sclerotomy was done three times and pressure bandage used. Bandage was changed twice a day and eserin instilled each time. T. became normal and V = $\frac{20}{30}$?

Case II.—Man in good health. L. V. = $\frac{20}{20}$ +; R. V. = $\frac{20}{20}$. R. field narrow, R. disk excavated, pupils somewhat large. Tn. Vision and field, generally worse in A. M., and there was some T. mornings. F. and V. improved under eserin, operated five months later. T. became normal and V. = $\frac{20}{40}$.

A paper on *Acute Glaucoma* was read by Dr. Blair (Pittsburg, Pa.). Ten per cent. of blindness is caused by glaucoma. This is a complex process depending on increased pressure in the eye. The haziness and anæsthesia of the cornea are due to œdema, the anterior chamber is shallow due to fluid in post-chamber. There is cupping of nerve, loss of vision due to tension, pressure on nerve and haziness of cornea, restriction of visual field due to pressure and poor blood supply, spontaneous pulsation of arteries and pain from irritation of ophthalmic division of fifth nerve.

The theories of the causes are two. (1) Hypersecretion, the older and unproven, and (2) Retention of fluid. It was demonstrated that the aqueous escaped through the spaces in the filtration angle; then it was shown that in all cases of glaucoma this angle is occluded. Drawings were here used showing blocking of angle by local diseases, traumatism, and tumors. Primary glaucoma is more frequent. The causes are gout, syphilis, disturbances of digestion and blood, etc. Older eyes are more liable as lens increases beyond middle life, and blood supply of ciliary body may be interfered with. That it is a disturbance of the sympathetic system has not yet been proven. The excision of some fibers of the sympathetic has been advised as a treatment. There may be such a thing as a glaucomatous diathesis, and these patients have rheumatism, syphilis, etc. It is nearly always bilateral; retinal hæmorrhage may be followed by increase in tension but not followed by glaucoma.

G. A. Shepard said, in discussion, that in our loyalty to retention theory we must not overlook the fact of hypersecretion, as increased tension follows fright, mydriatic, etc. He practices posterior sclerotomy preceding iridectomy as it reduces tension and liability of hæmorrhage, especially in severe cases.

J. A. Campbell (St. Louis), in his paper on *Glaucoma without Increase of Tension*, stated that tension was the prime cause and symptom, but in some cases glaucoma can exist without tension or the tension may be intermittent. There may be tension without glaucoma; for instance, iritis serosa almost always has increased tension. Cupping of disk may be absent in early stages and again may be only symptom. He suggests that glaucoma be considered not a group of symptoms, but a process. He cites two cases.

Case I.—Patient, aged forty-two, defective eyesight. R. V. = $\frac{15}{70}$; L. V. = $\frac{15}{40}$; anterior chamber shallow, pupils dilated, no spontaneous pulsation, no cupping. Hyperopic astigmia. R. eye, slight T.; L. E., no T. Eserin and gelsemium relieved pain, and there has been no T. for ten months.

Case II.—Woman, aged fifty, pain in head. V. = $\frac{15}{30}$; pupil large, anterior chamber shallow, disk congested, no cupping, no T. Refraction hyperopic. Eserin and macrotin relieved pain, and no return since.

In discussion J. N. Anderson of Toronto said: Is true primary glaucoma found without pressure? Increasing tension is the only unerring symptom, but may have one or more other symptoms. If such a condition (glaucoma without tension) can prevail, it should have new name. There may be one or more symptoms in other conditions, but any interference with filtration angle must mean increased tension. Increase in tension may be intermittent, hence it should be tested often. The normal tension in the eyes of different people varies. Our means of determining increase in tension are not absolute.

Priestly Smith says that finger touch is the most reliable test. Our instrument-makers themselves do not think their instruments absolute. The diagnosis depends on taking account of all symptoms, especially the pressure. Excavation of the disk may occur in eyes without tension as the result of intermittent pressure. Atrophy with deep cup must be carefully excluded. In neither of Dr. Campbell's cases were the muscle tests given, and heterophoria may be a predisposing cause by interfering with nutrition of different parts of the eye. The involvement of a few sympathetic fibers does not explain the symptomatology.

The Homœopathic Treatment of Glaucoma, by E. H. Linnell (Norwich, Conn.) was the next paper. He states that we are not justified in using internal remedies alone, for we cannot demonstrate that drugs have caused or cured glaucoma. He would suggest that cases treated with myotics alone and myotics and internal remedies be compared.

Many remedies have been suggested, but only general indications are given. Gelsem., phos., bell., and eserin are most frequently spoken of.

Gelsem. eye symptoms are meager: pupil dilated, specks, nervous depression.

Ars. 3x. gave good result in case recorded by Dr. Copeland of Ann Arbor. In this case the man suffered great pain and was nearly blind. There seemed to be a periodicity at about 10 A. M. of symptoms. Ars. 3x. was used from March to April, then the 12x. Eserin was used locally. Pain left and tension became normal. An iridectomy was done in April. The arsenicum symptoms are supra-orbital neuralgia; yellow, green, and blue vision; white spots.

Rhus has: obscured vision, like a veil, pain from eye to head.

Osmium has given some good results; $\frac{1}{600}$ grain is given at frequent intervals; rainbow colors are usual.

Phos. is especially useful in clearing up symptoms after iridectomy. There are ciliary injection, momentary blindness, objects appear as through gray veil, and there are various colors before the eye.

To rely on remedies alone except in rare cases, however, would be unjustifiable. The disease requires more research and study.

J. M. Patterson of Kansas City agreed with Dr. Linnell that treatment without myotic could not be justified.

Dr. Stewart quoted foreign authorities, who had shown that by the stimulation of certain secretory nerve fibers in animals glaucoma was caused, but they had not been able to demonstrate it in man; also that glaucoma can occur without occlusion of filtration angle and was present in one case of congenitally absent iris. Dr. Stewart questioned as to what influence errors of refraction and their correction have had on the number of cases of glaucoma. He thought physiological chemistry should be studied for an explanation. In treatment the diet should be watched, and nitrogenous food lessened. He cited a case where myotics and change of diet cured an attack.

W. McDowell asked how long might the myotic and internal remedy be used before operation.

Dr. Swan thinks if eserin and pilocarpin have been used two years, and there is no improvement, the eye is liable to deteriorate. The tension in glaucoma may not always be present,

but is more liable to be present in the morning. Why should eserin help in Dr. Campbell's cases, if there was no tension ?

Dr. Campbell never saw two cases of glaucoma exactly alike. In answer to question how long to treat, he treated one case fourteen years, and would keep it up as long as benefited. He thought any man had a good deal of temerity to operate a case with vision of $\frac{15}{15}$.

Dr. Shepard thinks case with intermittent tension should not be called glaucoma without tension.

Dr. George cited a case where a woman had great grief. There was an increased tension and halo. He used eserin, and thinking it a result of vaso-motor disturbance, gave cimicifuga. Halo and tension disappeared and vision became normal.

Dr. Blair considered the field of vision very important, and if this was decreasing an operation was indicated.

Dr. Linnell considers glaucoma is often a reflex through sympathetic system,—from nose, uric acid, etc.,—and in these cases the remedy does the most good.

AMERICAN MEDICAL ASSOCIATION. Fifty-third Annual Session, Saratoga, June 10 to 13, 1902. SECTION OF LARYNGOLOGY AND OTOLOGY (concluded). Reported by A. W. Palmer.

J. A. Stucky in his paper on *Acute Sinusitis*, beside the usual ætiology, and symptomatology, said that bacteriology threw little light upon cause of this disease and that the temperature and pulse are not indicative of the severity of the condition. Treatment, palliative; he keeps patient in recumbent position, uses dry heat or hot nasal douche of normal salt solution, adrenalin, 1–1000 spray; but strongly condemns cocain.

Functional Tests of Hearing by Wm. L. Ballenger (Chicago) was a thorough consideration of the several procedures usually collated under this class of tests. They may be generally under two classes: (1) Major principal, that is, aërial conduction. (2) Major bone conduction. By aërial conduction in a person up to fifty-five years of age, the range of hearing normally extends from 64 to 45,000 vibrations per second. Normal bone conduction is about half that of aërial. Percep-

tion by bone conduction is (*a*) increased in diseases of the middle ear, and (*b*) diminished in affections of the labyrinth. (3) Intensity or acuity of hearing depends more particularly upon the condition of the labyrinth ; then the increase or diminution in this is caused by abnormal conditions of this portion of the auditory organ. It is fair to assume if the range of hearing is curtailed in the lower tones that it is due to middle-ear disease, while, if the higher notes cannot be distinguished, the labyrinth is at fault.

But it is rarely safe to draw conclusions from any single test ; we should judge from the conclusions drawn from the majority of all the tests devised.

Discussion.

Dr. Andrews of Chicago drew attention to the necessity of procuring forks free from overtones, which is very difficult to do from the average instrument-maker. These overtones materially affect the length of time several forks are heard. C_2 is the note most frequently employed. Then again the length of sound depends upon the portion of mastoid in contact with the fork, and the pressure with which the fork is held against the bone. If placed immediately behind the auricle, the vibrations of the fork will be heard longer than if placed either above or below the auricle.

Dr. McAuliffe, of New York, noted that frequently neurasthenic patients thought that the sound ceased before it really did ; in these he removes the fork for a second or more, and then returns it to its former position, when it will sometimes be recognized, showing the incorrect idea of duration given the examiner if the extra control test was not used.

B. A. Randall of Philadelphia, in his article on *Notes on Aural Vertigo*, said that this condition had been of much more frequent occurrence since the numerous visitations of the grippe epidemics. He believes it is usually of labyrinthine or tympanic origin. The most common cause is Eustachian obstruction. Other causes less frequent are vaso-motor disturbances in the labyrinth, the local manifestations of neurasthenia, and least frequent is the increased tension of the ossicular chain in the tympanum ; this latter may be cured by operative interference.

As to treatment, we should endeavor to ascertain the cause and remove that. Adrenalin, 5 to 10 gtt. or, better still, 2½ to 5 gr. tablet twice a day, will frequently forestall an attack or relieve one already present.

Discussion.

CHAS. H. BAKER (Bay City) prefers nitro-glycerin because it reduces the intravascular pressure in the ear, while the adrenalin increases it.

SNOW (Syracuse) considers this vertigo may be due to constitutional as well as local conditions; may frequently be due to general toxæmia.

C. R. HOLMES (Cincinnati) related an interesting case of aural vertigo accompanied by epileptiform convulsions caused by obstruction of the Eustachian tube, which vertigo, as well as the convulsions, was permanently relieved by curing the conditions causing the obstruction.

In closing DR. RANDALL said adrenalin, like all drugs, has its action and its reaction. It is the first of these we make use of in this disease, and the latter should be met by strychnia or other tonics. He employed nitro-glycerin in flabby neurasthenic patients.

Transillumination of the Accessory Sinuses in Acute Coryza, by C. M. COBB (Lynn), consisted of a full history of this procedure, and a thorough analysis of twenty cases of acute coryza, which he examined by this method. Although this is not a very pathognomonic indication of sinus involvement, he was of the opinion that these cavities are implicated in acute catarrhal conditions more frequently than was generally supposed. Headache, especially hemicrania, is more frequently due to sinusitis of the maxillary antrum than supposed, because of the intimate relation of the infra-orbital and superior dental nerves, and branches of the trigeminus with the lining of this sinus. Headaches are usually attributed to eye-strain.

CLEMENT THERSION (Albany) read a paper entitled, *An Unusual Case of Nasal Syphilis in a Child, and a Consideration of Nasal Tumors.* Although no specific history could be ascertained and some tubercular bacilli were found in the tumor

which commenced to grow from the right middle turbinated, but ultimately filled both nostrils with a growth having all the appearance of a simple papilloma, still the author diagnosed the tumor a syphiloma. It caused great sensitiveness of the cheek, and very severe reflex asthma, and was accompanied by marked tumefaction of the right cervical glands. The growths recurred after operation.

In the discussion Dr. Anderson related a case in a girl fifteen years old, in which the tumor, at first the size of a pea attached to the cartilaginous septum, but later extending into the naso-pharynx and involving the ethmoidal cells, which was entirely cured by pot. iod. without operative interference; no specific history in this case either. These tumors usually occur about puberty, and more frequently in females than males. The author says, Don't operate until anti-syphilitic treatment is tried, and don't depend on potash alone, but use mercurial inunctions.

Dr. Ballenger asked if the anti-syphilitic treatment would not relieve or rather reduce other growths than syphilitic, such as sarcoma, tuberculoma, and even possibly carcinoma? He thought it would.

Dr. Beck reported a case of mixed tubercular and syphilitic infection cured by potash.

Dr. Knight gave the history of a case of tumor or tumors of eight months' duration in child fifteen months old, located in the naso-pharynx and nose, which enlarged the latter externally. No syphilitic history. Two months' treatment by inunction of mercury caused perfect absorption.

Dr. Gibbons (Syracuse) said before abandoning internal treatment for operative push it to point of tolerance and further make sure that the potash is procured of a reliable druggist, so that you are certain of having the genuine article.

Dr. Pynchon has pushed the potash as high as 1200 grs. per diem in an adult.

The question that Dr. Ballinger gave, Should not anti-syphilitic treatment advantageously affect other pathological conditions than syphilitic, was considered by the gentleman named and several others, and it was the consensus of opinion that it would

cure the syphilitic lesion and, or rather but, ameliorate the others —it might appear to cure them for a time, but they would recur, and finally would not be mastered by however large a dose might be administered.

The Diseased Middle Turbinate, by CHAS. H. BAKER, Bay City, Mich.

Close observation shows that this body has slightly different conformation in the different-shaped skulls in the several races. The author believes that the middle turbinate is more important than the inferior in carrying out the normal functions of the nares. The pathological changes of acute coryza begin in the middle turbinate, as is shown by that body becoming congested a few hours before the inferior. Being in the region of the outlets of the sinuses, it holds a key to their healthy condition, as it protects them when normal but obstructs them when diseased. The author believes polypi a sign of existing or past suppuration in the sinuses or meatus, also holds that no treatment of the pedicle of a polyp will preclude its re-formation, but to accomplish this the cause of the formation of pus must be removed. The habit of trumpeting when clearing the nose is very detrimental, as the anterior nares are nearly occluded and the mucus and dust in the nares are liable to be forced into the sinuses, causing disease; therefore it is advisable to instruct patients in the proper mode of cleansing the nares. A bulbous enlargement of the middle turbinate causes not only local but distant symptoms, as the following demonstrate:

CASE I.—Of asthma; examination showed the bulla ethmoidalia enlarged and full of pus—removal of turbinate and cure.

CASE II.—Also asthma, and removal of bulla filled with cheesy pus; cured.

CASE III.—A German farmer suffered with paralysis of the left external rectus, accompanied with no headache. Ocular examination showed no cause there, but there was an enlarged middle turbinate with polypus in same side of nose. Removal of the polypi and turbinate disclosed light yellow pus in bulla and cured the paralysis.

In the discussion O. T. FREER (Chicago) preferred removal of this turbinate with a modified spoke-shave, and be-

lieved that a suppurative process was not always present in the ethmoidal cells; but that a cystic degeneration of their lining membranes would enlarge them and cause the reflex symptoms similar to suppuration.

E. PYNCHON (Chicago) thought many cases of asthma and hay fever due to occlusion of the nasal attic, also that the singing voice is materially and frequently affected by the same condition. The atrophic condition of the inferior turbinated body, which so very frequently accompanies occlusion of the attic, the speaker believes he has often cured by proper treatment of the diseased tissues causing the occlusion above.

ROBT. C. MYLES (New York) in his paper entitled *Remarks Concerning the Management and Treatment of Rhino-pharyngeal Tonsils by the General Practitioner*, said that diseases of this organ were caused by mechanical irritation, and they, on account of their effect in interfering with the circulation in the vicinity, cause such conditions as œdema and elongation of the palate.

The Degenerate Tonsil, by E. PYNCHON.

In the process the protrusion becomes less pronounced. The diminished protrusion largely due to a transformation into submersion. During the process of submersion, a gradual absorption of the hyperplastic element. Consequently a relative hypertrophy of the follicular element. This evolution, which may progress for many years, constantly accompanied by, and undoubtedly produced through a low chronic inflammation, manifested by the discharge of a cheesy secretion from the crypts, known as chronic lacunar tonsilitis. Nothing less than thorough eradication to be advised. No patent argument for the partial retention of a diseased gland. Invariable benefit from thorough tonsilectomy. Total loss of the faucial tonsils does not in any way impair the integrity of the economy.

The author exhibited a set of very ingeniously devised electro-cautery knives for the almost bloodless and total extirpation of the tonsil, made after his own pattern.

In closing the discussion, DR. PYNCHON said that he had found that a portion of the posterior half of the anterior pillar might be removed without interfering with its normal function. Forma-

tion of granular tissue in the wound could be prevented by massage. In answering the criticism of tonsillectony by some he reminded them that "it is bad surgery to partially remove a diseased tissue."

Two Cases of Brain Abscess. By GEO. F. KEIFER, La Fayette, Ind.

CASE I.—At the first operation, the regular simple mastoid, the bone was very soft and cells were found full of fetid green pus. Some time later, at a second operation, the jugular and lateral sinus were found normal, but there was abscess of the left temporo-sphenoidal lobe. Although neither food nor saline solution could be retained per mouth or rectum, still the mentality was good until death, a very peculiar occurrence. The only application that would kill the fetor of the pus was mixture of equal parts of oil of eucalyptus and menthol.

CASE II.—There was O. M. S. C. with tenderness of left mastoid, with marked aphasia when tested in accordance with Bastian's method. Pus was found under the meninges covering the temporo-sphenoidal lobe. Peculiarity in this case was that the antrum was one-half inch above its normal position.

A Case of Multiple Angioma of the Nasal Septum. By JOHN O. MCREYNOLDS, Dallas, Tex.

It occurred in a young man not a hæmophiliac, and the tumors appeared in successive crops. A. W. P.

AMERICAN OPHTHALMOLOGICAL SOCIETY. Thirty-eighth Annual Meeting, New London, Conn. July 16 and 17, 1902. (Abstracts of a few of the principal papers.)

C. A. VEASEY reported *A Case of Endothelioma of the Orbit* occurring in a man thirty-five years of age. Twelve years before removal there had been observed a small growth, the size of a green pea, directly in front of the lachrymal gland. This gradually increased to size of a small walnut, and was kidney-shaped. It was mobile from side to side, but presented deep orbital attachments. The eyeball was pushed toward the nose and downward and there was also some impairment of the upward movement, but vision was normal and there was no ophthalmo-

scopic change. The growth was extirpated, measured 2½ × 1½ cm., and microscopically proved to be a *lymphangio-endothelioma* similar to the mixed tumors of the parotid. A year has elapsed without recurrence.

Report of Case of Congenital Orbital Cyst with Microphthalmos. G. C. HARLAN.

A delicate-looking, but apparently healthy girl, seven years old; Polish waif, history not ascertainable, except tumor, probably congenital and increasing in size. "The left lower lid was pressed forward by a large incompressible, but intensely fluctuating cyst" of bluish hue. Size 40 mm. by 25 mm. Lower major orbit 5 mm. below that of opposite side. "Interpalpebral commissure was pushed upward and arched by the pressure of the tumor and opened into a deep conjunctival sac. Above the cyst, at the bottom of this sac, could be felt a rudimentary ball, apparently scarcely larger than a pea, which moved in unison with the other eye." O. D. perfect. Upon removal cyst extended to bottom of orbit, but no connection with rudimentary ball. A minute pathological report by Dr. Flexem follows, which it is impossible to abstract.

A Case of Metastatic Carcinoma of One Optic Nerve with Peculiar Degeneration of Both Nerves—Clinical and Pathological Report. WARD A. HOLDEN.

Following sarcoma of the breast the left eye of a woman of forty-one became completely blind, and in the right field the infero-nasal quadrant was defective. The optic disks remained normal up to the patient's death four months after the left eye had become blind. The left nerve was destroyed by an ingrowth of carcinoma from the basal dura, but sections through the chiasm and through the nerve near the eye, when stained by Weigert's method, showed no atrophy. Marchi's method showed only a few atrophic fibres, and Van Giesen's method showed a considerable increase in neuralgia. It was an extraordinary fact that the atrophy remained so long localized to the region of the tumor.

The right nerve had not been affected by the neoplasm, but 6 mm. anterior to the chiasm vessels with thickened walls ran in from the pial sheath and produced a sclerosis of the nerve,

limited to its upper portion and extending but a short distance antero-posteriorly. Sclerosis of the supporting tissues is now generally considered a secondary result of degeneration of the nerve fibers from any cause, but here the primary change seemed to be the vascular affection, which caused a slight degeneration of the fibers and a great increase in the interstitial connective tissue. Plugging or sclerosis of the pial vessels must therefore be taken into account in the ætiology of obscure cases of optic-nerve atrophy.

A Case of Double Metastatic Carcinoma. EDWIN E. JACK.

Female, æt. forty-five, always had been well except for rheumatism. Father died from cancer of the lip (pipe-smoker), one sister died of tumor of the breast. Typical scirrhus of the left breast, nine years' duration, never operated on, involvement of left axillary glands. O. S. separation of the retina, T. +. Diagnosis of metastatic carcinoma made. Eye enucleated, orbital tissue not involved. Eye was examined by Dr. Frederick Herman Verhoeff and intra-ocular tumor found, of undoubted metastatic origin.

This makes the twenty-ninth case of ocular metastatic carcinoma reported. Twenty-three of these have been in females and five in males; one clinical history unrecorded. Of these nine have been double and all but one in females. The primary tumor in these double cases was in the breast in eight (including the male), and in the lung in one.

A Case of Cavernous Sinus Thrombosis Following Grippe—Autopsy. EDWIN E. JACK.

Male, æt. forty-three. Illness began with symptoms of grippe and facial neuralgia. After a few days there was a remission, to be followed shortly by a renewal and increase in the severity of the symptoms. Two weeks after the onset O. D. began to be prominent, and next day O. S. Temperature varied from 100° to 101°. When first seen by the writer, patient lay in a stupor from which he could be with difficulty aroused.

Exophthalmos O. U., conjunctiva chemotic, pupils moderately dilated, but reacted to light. Fundi, somewhat, though not markedly, dilated veins. No œdema over mastoids. Patient

grew worse very fast. Operation was deemed inadvisable and death came within thirty hours of the first observation. Temperature ran up to 106.5°, pulse difficult to count.

Autopsy by Dr. Frederick Herman Verhoeff :

Empyema of sphenoidal cells. Thrombosis and suppuration of cavernous, circular, right inferior petrosal, left superior and inferior petrosal, and left sigmoid sinuses. Thrombosis of right jugular vein. Suppuration of left post-orbital tissue. Purulent meningitis. Embolic abscesses of the lungs.

The question of operative interference in these cases is important. In a case seen by the writer and operated on by Dr. E. W. Dwight the efficacy of operation (in this case trephining the temporal bone low down, lifting up the temporal lobe and incising the sinus) was shown by the rapid recession of the exophthalmos and general improvement in patient's condition. It was too late, however. Here it seems to the writer is where the greatest difficulty comes in. It is hard to be sure of the diagnosis until the process is too far advanced. The fundus appearance and œdema of mastoid are not symptoms that can be relied upon to determine the diagnosis. It seems fair to state that surgical measures could accomplish much, if attempted at an early period.

On the Primary Insertion of the Ocular Muscles. Lucien Howe of Buffalo, N. Y., dealt with the insertions of the tendons only, not with those bands of connective tissue which, passing from the muscle to the globe or to adjoining structure, also serve as a smaller or secondary attachment.

The plan adopted by the writer was similar to that followed by Fuchs. The position of the vertical and horizontal planes and the equator having been accurately determined, these were marked by fine rubber bands. These lines, as well as the edge of the cornea, serve as fixed lines from which measurements could be made. At least three points in each insertion were taken, to determine the length and arc of the insertions. Incidentally also note was made of the point of exit of the vorticose veins with respect to the muscle. In this way twenty-one eyes were examined and the measurements plotted after the manner of the Mercator projection.

The results were: First, in regard to the recti. These were

not essentially different from former measurements of a similar kind. The tendons were found to be inserted in a spiral beginning with the internal rectus, a little more than five millimeters from the edge of the cornea, touching the insertions of the inferior, the external, and the superior, the last being about seven and three-fourths millimeters from the corneal margin. The position, length, and arcs of the recti were also comparatively constant.

Second. The insertion of the superior oblique was found to be more variable than that of the recti as to its position, its length and form. The insertion of the inferior oblique was the most irregular of all.

Third. The tendons of the latter two muscles have an important relation to the exit of two of the four or five vorticose veins being so situated as to compress these veins very decidedly.

The Ideal Results to be Kept in View in the Operative Treatment of Convergent Strabismus in Children. S. THEOBALD.

The successful outcome of operation for squint depends largely upon subsequent wearing of glasses, which is greatly objected to, especially in the upper classes, because of marring the child's appearance. A certain consideration should be given to this aversion. To minimize the length of use of glasses, the author follows this plan : A minimum amount of muscle-cutting, usually a tenotomy of the internal rectus of the squinting eye, which commonly left a residual squint. The establishment of binocular fixation by the careful adjustment of glasses, prisms being not infrequently combined with the necessary correction of the refractive error. Then, the gradual withdrawal of the help afforded by the glasses, beginning usually with a reduction in the strength of the prisms, and, when they have been eliminated, treating the spherical correction in the same manner, until finally the glasses are put aside altogether or, at most, are worn only in near vision.

A high degree of hypermetropia, pronounced anisometropia, decided astigmia and, above all, that marked indisposition to binocular vision encountered in some strabismic individuals, were mentioned as the conditions which militate against the success of the method.

A brief account of an illustrative case was given, the patient being a little girl, four years of age, with a marked convergent squint and Ht. = 3.50 D. After a tenotomy of the internal rectus of the squinting eye, binocular vision was soon established by sphero-prismatic glasses. After this had been maintained for about two months the glasses were gradually withdrawn in the manner described, and within four months of the date of the operation were put aside altogether. In the five years which have since elapsed the squint has shown no signs of returning, and the child, with no help from glasses, has been entirely free from asthenopia.

On the Confusion in Methods of Using Prisms. LUCIEN HOWE, Buffalo, N. Y.

The writer called attention to the facts: First, that there still remains a difference in the methods of numbering prisms adopted by different opticians and that in the higher number this difference is sufficient to be of real clinical importance. Second, another cause of confusion is in the tests which we make to determine the position of the eye when at rest, some practitioners using one test in one way; others using the same test in such a manner as to give a different result and still others using other tests without regard to details which would influence the result. Third, in testing the dynamic condition of the muscles, the power of convergence and divergence, there is a similar lack of uniformity; some practitioners commencing with a weak prism, gradually increasing the strength; others commencing with a prism strong enough to produce diplopia from the first and gradually decreasing the strength, obtaining entirely different results. Fourth, there is confusion in the terms used to express the conditions found after the tests with the prisms have been made.

In Europe the nomenclature first suggested by Graefe is still in use while the terms esophoria, exophoria, etc., have been quite generally adopted in this country and are occasionally used in England.

In view of this confusion as to the prisms themselves and the method of using them to determine both the static and the dynamic conditions of the muscles, it was recommended that the

subject be considered by an international committee which would recommend a uniform method for general adoption.

THE AMERICAN OTOLOGICAL SOCIETY. New London, Conn., July 15, 1902.

Trauma in Relation to Exfoliation of the Adult Labyrinth. B. ALEX. RANDALL, Philadelphia.

Reported the case of a man struck on side of head in a railroad accident causing very severe dizziness, but no deafness or paralysis. Eight months later he had very severe pain in ear and side of head, which at time was attributed to diseased teeth, several of which were extracted without relief. Two weeks later facial palsy supervened. Six months later the mastoid antrum was operated upon, but no loose bone found, but the neuralgic pain and vertigo did not abate. After another six months the aural discharge again returned, also granulations, and became totally deaf. As a third operation, the author removed a sequestrum, a piece of the wall of the labyrinth. Subsequent to the operation the palsy ceased immediately, and the pain and vertigo gradually. Seldom is a sequestrum found except in a tubercular or syphilitic constitution. Author found thirty-nine cases on record. Scoti reports case where symptoms did not develop until two years after the trauma. Shapleigh reports case of a negro who was struck on head with an ax, which was followed by almost continuous headache for ten months and some vertigo. He had similar attacks, but of shorter duration every two years, until fifteen years after injury he was operated upon, and the mastoid process was found displaced downward and forward, while the petrous portion was almost completely necrosed.

The only method to obviate sepsis in these cases, as it is always carried through the Eustachian tube, is by maintaining thorough antiseptic condition of the nares and naso-pharynx. Diabetes will cause destructive otitis occasionally.

Discussion.

DR. TANSLEY, New York City, reported a case of a boy ten years of age, from whom he had removed the whole petrous portion of the temporal and who is still living.

Dr. Jack, Boston, has a specimen containing the three semicircular canals which he removed from a patient five years ago, and who is still living.

In closing, Dr. Randall said that fracture of the external canal and the m. t. could take place accompanied by only a slight springing of the petrous portion from its surroundings without actual fracture of the latter.

What Means, Other than Operation, Have we for Preventing and Combating Inflammation of the Mastoid Cells? Samuel Theobald, Baltimore.

As the application of cold and leeching are so universally used he passed them. He also thinks that too great reliance is put upon local remedies or measures, especially the above named, and too little attention is given to constitutional, remedies. The first and chief suggestion he would offer was to ascertain the most beneficial antiseptic solution, and then have the ear cleansed with such at home, two or three times a day. Author considers bichloride of mercury 1 : 8000 to 1 : 400 the best; saturated solution of boric acid also good.

But where streptococcus or pneumococcus infection pertains we are usually helpless. Anodyne applications are not deleterious, as some consider—I believe a mixture of cocain and atropin, locally, rather beneficial to an inflamed tissue. Purgation by calomel is helpful. Pyro-phosphate of soda, in adults twenty grains and in children ten grains, every two hours, retards the suppurative process. Locally first boric acid, and later the bichloride. Occasionally,—only when there is actually pus to be freed,—paracentesis is necessary; but I think it is sometimes performed when unnecessary. When so done, it only opens a new avenue for bacteriological infection. The antrum and mastoid cells are more frequently affected in conjunction with o. m. s. than was formerly deemed the case. The author considers a sodden appearance of the m. t., as well as the redness and bulging of the m. t., a sign of mastoid involvement. When there is a perforation of the m. t. greater care should be taken in washing, and use of anodyne to avoid sepsis, ¼ to ½ gr. calomel every one or two hours, will reduce the suppurative process. The cardinal point is to begin treatment early.

Discussion.

Dr. Tansley indorsed the use of calomel and said, "When you have streptococci or pneumococci don't waste time with medicine, but operate."

S. O. Richey, Washington, D. C., believes Politzerization and cleansing with $H_2 O_2$ most deplorable practice. He is adverse to operation. He cleanses the middle ear by throwing solution through the Eustachian catheter, then sucking it out by same avenue, repeating this three or four times.

W. B. Johnson, Paterson, N. J., indorsed cocain and atropin application, and uses adrenalin on mouth of Eustachian tube to make it more patent.

B. A. Randall, Philadelphia, said he had seen cases with symptoms of mastoid disease cured without operation. The aurist must be very careful to distinguish between endo-periostitis of the mastoid and empyema or caries of the mastoid; both of which are unfortunately included under the term mastoid disease. In the first, operation is not needed; but it is very doubtful if the latter two ever get well without an operation. Of the cases that the speaker had seen early, less than one per cent. had needed operation, but, on the other hand, in the five hundred operations he had performed or witnessed pus was present in every instance.

E. E. Holt, Portland, Me., uses ten per cent. solution of officinal carbolic acid; it acts as a leech and antiseptic conjointly. Also gave the history of a case he had seen, which had severe pain, discharge of creamy pus containing streptococci; he advised operation, but he (Dr. H.) was taken ill, the patient would not be operated upon by another surgeon, but cleansed the ear himself with $H_2 O_2$ on cotton on applicator. When the doctor recovered the patient returned, and examination showed entire cessation of discharge and disappearance of pain and all symptoms. There has been no return in a lapse of three years.

G. Bacon, New York City, in a paper previously presented to the A. M. A. had reported thirty cases cured out of forty without operation.

J. F. McKernon, New York City, considers absolute rest in bed one of the most important measures. Reported two cases,

a woman seventy-four years of age and a man eighty-four years old; both had Bright's disease. In the first, operation not advisable on account of weakness of patient; the man refused operation. Both were given internally sodium hypo-phosphate, rest in bed, cleansed ear with bichloride and Leiter's coil on mastoid—both were cured.

F. L. JACK, Boston, thought tenderness in following spots pathognomonic: on pressure on the posterior surface of mastoid, and upon pressing forward and outward with finger on the under surface. Would rather err on the operative side.

E. GRUENING, New York City, believed persistent tenderness characteristic.

AMERICAN LARYNGOLOGICAL ASSOCIATION.* Twenty-fourth Annual Meeting, Boston, May 26, 27, and 28, 1902.

Tumor of the Pharynx, E. L. SHURLEY.

The reader presented an accessory thyroid gland which was removed from the pharynx. It is important to note that the removal of this growth was followed by myxœdema.

J. W. GLEITSMAN reported *A Case of Sarcoma of the Larynx* which was situated below the glottis. This tumor, which was shown, was as large as the end of the thumb; its removal was accomplished from within by means of the galvano-cautery snare, the larynx having first been well cocainized. He described his method of preparing the larynx to tolerate the necessary amount of manipulation required for this operation, which consisted principally in almost daily introduction of instruments into the larynx.

Discussion.

J. H. MACKENZIE criticised the operation, as he believes that all tumors of a malignant nature situated in the larynx should be removed with a complete extirpation of the larynx and the glands of the neck.

DR. DELAVAN upheld the operation, as it had been shown that this was a case of sarcoma and not carcinoma.

*Reported by Dr. N. H. Houghton of Boston.

Other speakers generally agreed that where a case was malignant removal by extirpation of the larynx was the best method, but the results in this particular case justified the method of operation and all praised the dexterity shown by Dr. Gleitsman in performing so difficult an operation.

C. H. KNIGHT reported *A Case of Epithelioma of the Larynx* which was removed, but there was a recurrence, followed by death four months later. Dr. Knight considered that a case involving the organs extensively was not operable.

Discussion.

DR. CASSELBERRY believed differently and cited cases which have been successfully operated upon.

D. BRYSON DELAVAN'S paper on *The Use of the X-Ray in the Treatment of Malignant Disease of the Larynx* consisted chiefly in a recommendation that this method be tried. He had not learned that any cases had been reported under this treatment.

DR. SWAIN, in discussion, said that he believed that it should be tried in all non-operable cases because of the relief which had been obtained in other cases, if for no other reason.

J. PAYSON CLARK read an interesting paper in which he had used intubation tubes for the dilatation of the larynx in cicatricial occlusion and stenosis.

J. L. GOODALE, in his paper entitled *Acute General Infections Originating in the Lymphoid Tissue of the Upper Air Tract*, traced a great number of diseases which were due directly or indirectly to tonsilar infection. In this light he regarded the tonsils not as protecting organs, but as channels through which infections might enter the system.

Discussion.

H. L. SWAIN did not believe in removing tonsils because they might give trouble later, but if the tonsils have done mischief then get rid of them, and remove the large spongy ones for mechanical reasons.

CLARENCE C. RICE deprecated the use of astringents in inflammatory conditions of the tonsils because they prevent the escape of the infectious material from the crypts.

E. Fletcher Ingals said these diseases could often be aborted by using guaiacol oil.

The So-called Immunizing Treatment of Hay Fever.

E. Fletcher Ingals reported his experiments on twenty cases of hay fever, trying to abort the disease by using equal parts of the fluid extract of golden-rod and ragweed. Each case was given a spray of adrenalin. Results were inconclusive.

S. B. Hope, *Clinical Features of Hay Fever and Treatment*, advocated a very careful search of the nose for irritable points and abnormalities of the turbinates and septum.

It seemed to be the consensus of opinion of those present that liquor ambrosiæ was of very doubtful value in the treatment of hay fever.

F. Whitehill Hinkel read a paper on the *Treatment of Empyema of the Sphenoidal Sinus*, and pointed out the great difficulty in reaching the sinus through the natural ostium. He considered that the dangers from an operation were much less than the dangers from a neglected empyema. He related one case in which he removed the middle turbinate and then with a drill and motor removed the anterior and lower part of the sphenoid and obtained very good drainage. Results have been satisfactory, but some continue to have more or less muco-purulent discharge.

Discussion.

J. H. Bryan reminded the members that great care must be taken not to wound the carotid artery. The curette has been the most satisfactory instrument in his hands. He considers the burr dangerous.

Emil Mayer thinks that the automobile will be responsible for a great many accessory sinus diseases.

Dr. Casselberry called attention to the frequent association of syphilis and accessory sinus disease.

Dr. Farlow reported a case of severe pain in the eyes and occiput which was entirely relieved by taking out nasal polyps and washing out the sphenoidal sinus.

Emil Mayer exhibited a large *Adenoma of the Nose*, successfully removed, with restoration of the face to nearly its normal condition.

Leukoplakia, by F. C. Cobb. The causes of this disease are syphilis, tobacco, alcohol, hot coffee, and stomach troubles in rheumatic subjects.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY, Washington, D. C., June 2, 3, and 4, 1902.

In his President's Address

Charles W. Richardson of Washington said that the plan of compelling instruction in the special as well as in the other branches had led to undue crowding of the curriculum, and had been disappointing in its results. Instruction in the specialties should be so planned as to supplement rather than to supplant the major branches, of which they form an integral part. Attempts to turn out full-fledged specialists should be promptly checked. Theoretically the elective system was ideal, yet the tendency in undergraduate life was toward too great narrowing by the elective system, and he thought in the long run the elective student would be overtaken and passed by those who had received a broader education. Speaking of the condition of the Society, there are now 233 names on the roll; the Section meetings have been better attended than in former years. A new departure has been made this year in the conduct of the annual meeting by establishing a pathological exhibit.

Aural Bougies. George L. Richards, Fall River, Mass., exhibited aural bougies for the relief of earache and otitis externa. They are the size of a quill, half an inch long; can be done up in tin foil or dispensed in lycopodium powder. After dipping in warm water they are inserted in the external auditory canal. Their formula is: Carbolic acid, $\frac{1}{16}$ minim; fluid extract of opium, $\frac{1}{4}$ minim; cocain, $\frac{1}{4}$ grain; atropin sulph., $\frac{1}{14}$ grain; enough water, gelatin and glycerin to make a proper mass which will readily dissolve at the body temperature. In his experience earache has been aborted by this means in considerably more than one-half of the cases occurring in children.

Foreign Body Removed with Difficulty. M. D. Lederman, New York, had with a probe detected a pebble through granulations which filled inner third of external auditory meatus; the pebble had formed a cavity from which it could not be dislodged. After displacing the auricle and removing the granu-

ation tissue the stone was extracted with a dull wire curette. A large perforation in the posterior inferior quadrant existed and a dislocated malleus, which was also removed under antiseptic treatment, the membrane healing in four weeks.

Points of Necessary Prominence in the Treatment of Catarrhal Deafness. SARGENT F. SNOW, Syracuse, believes that in chronic cases a good prognosis was warranted in many more cases than it is now given. The secret of success was often to be found in the relief of a constitutional condition by which the Eustachian tube is kept occluded. The best treatment was the introduction through the Eustachian tube into the middle ear, of air under pressure saturated with gum camphor and iodin, but such treatment was out of the question until patency of this tube had been secured. Wool and linen mesh were the best materials for the undergarments.

C. R. HOLMES, Cincinnati, disagreed only on the question of underwear. Personal experience had showed him that woolen underwear was not the best for the catarrhal subject. Most persons live in overheated rooms and cannot remove heavy undergarments without trouble or possible danger, while it is very easy to regulate protection by varying the weight of the outer clothing. He had many times taken persons, both old and young, out of flannel underwear in mid-winter without any serious inconvenience.

C. DUNBAR ROY, Atlanta, believed that woolen underwear should not be worn in the winter, the changes being made in the outer clothing. Because a nostril is stenosed is no reason for believing that the deafness will be relieved by removing the nasal obstruction. He preferred menthol and iodin in albolene to vapor in the Eustachian tube. He uses solid silver catheter bent each time to adapt it to the nasopharynx of the individual case. The condition of the drum membrane as to its pliability and the existence of adhesions should be ascertained before making a prognosis.

S. MACCUEN SMITH, Philadelphia, thought it was a mistake to put on heavy woolen underwear in winter, even in places as far north as Philadelphia. He uses a hot shower or spinal douche rapidly alternated with cold. He had not the slightest doubt

that auto-intoxication arising from fecal accumulation was often a complication in these cases.

GEORGE L. RICHARDS: Chronic catarrhal otitis media could exist with the nose and pharynx in perfectly normal condition. Professor Minot has recently announced that he has discovered glands in the Eustachian tubes, a point which might explain some of the intricacies of this subject.

E. B. DENCH, New York, agreed as to the advisability of changing the outer clothing rather than the weight of the underwear. Silk is the worst fabric for underwear because it quickly becomes saturated with moisture, and the wearer is therefore exceedingly liable to be chilled upon the slightest exposure to cold. The linen mesh underwear was found very comfortable and useful by many catarrhal subjects. Chronic catarrhal deafness can be very materially benefited. These patients should be told at the outset that cure was probably out of the question, and that improvement could only be effected by a long course of treatment. Discouraging as were these cases, his experience had been that, in persons who would intelligently co-operate with the physician, the results were encouraging, and even in the worst cases the deafness would increase exceedingly slowly.

WILLIAM L. BALLENGER, Chicago, could not entirely share Dr. Snow's enthusiasm or indorse his favorable prognosis. The reasons for failure were obvious from a study of the pathology. The disease was one in which the mucosa had been hypertrophied, and adhesive bands extended to the drum membrane or the ossicles. The Eustachian tube contains considerable lymphoid tissue, which by hypertrophy often obstructs it; under such conditions hygienic treatment could not be expected to effect a cure.

JOHN A. THOMPSON, Cincinnati: Preventive treatment should receive consideration. The proper treatment of the nose and throat during the acute infectious diseases of childhood, in typhoid fever, and in acute articular rheumatism, would accomplish much in this direction.

In closing, DR. SNOW said: By injecting vapors interruptedly the mobility of the parts seemed to be increased by the manipulation. The auscultation tube should be always be used in

giving the treatments. Auto-intoxication appeared to have an important connection with many, but not all, of these cases. Sclerosed cases certainly appear hopeless, but there are a great many more which can be benefited by appropriate treatment. Even in the more intractable cases he is becoming more hopeful as a result of giving daily treatments instead of at longer intervals, as formerly.

The Effect of Climate on Laryngeal Tuberculosis, with Special Reference to High Altitudes, ROBERT LEVY, Denver, Col.

Comparatively few writers dwell upon the climatic treatment of *laryngeal* tuberculosis. Those who had studied the subject superficially were almost unanimous in condemning high altitudes. Without preconceived notions he had conscientiously studied complete records of 205 cases, and now desired to present a preliminary communication on this topic. High altitudes alone were of comparatively little importance, pure air being the most essential element in the treatment of laryngeal as well as of pulmonary tuberculosis. Such air was found in sparsely settled high altitudes, and on the sea. The pathological picture of laryngeal tuberculosis is one of complete relaxation and anæmia, not of inflammation. He had already called attention to the injurious effect of high altitude on acute tuberculosis, particularly of the pharynx. It was well-known that thirty per cent. of all cases of pulmonary tuberculosis show, sooner or later, laryngeal involvement. In the cases developing both lung and throat lesion in Colorado, the throat lesion manifested itself forty-eight weeks later than in those originating elsewhere. Again, in cases developing the lung lesion elsewhere and the throat lesion in Colorado, the throat lesion occurred on an average 62.3 weeks later than in other regions.

ARTHUR G. ROOT, Albany: It is generally admitted that laryngeal tuberculosis might be primary in a few instances. A case of tuberculosis showing fairly advanced pulmonary lesions, and giving a history of repeated hæmoptyses, should not be referred to a high altitude until this condition had improved. The dryness and purity of the air constituted the essential elements.

C. DUNBAR ROY did not believe that tuberculosis was ever primary in the larynx. He knew of no treatment equal to a

suitable climate. Altitude was not all. Dry air was the most important desideratum. Atlanta was situated at an elevation of fifteen hundred feet, but in that moist climate he had seen cases of tuberculosis grow steadily worse, and only improve when sent out to the dry air of Arizona.

By one deep strong inhalation of a strong solution of menthol in albolene it is often possible to detect pulmonary tuberculosis in its incipiency; a cooling sensation will be experienced in the lung not involved.

H. W. Loeb, St. Louis, said that since hearing this paper he had changed his previous view, that it was better for cases of laryngeal tuberculosis to die at home than in Colorado. He had known cases of tuberculosis, which had received every kind of treatment at home without improvement, improve rapidly after going to Arizona and receiving no treatment.

John O. McReynolds said that about two years ago he had resolved not to treat any more cases of laryngeal tuberculosis because, no matter how faithfully he treated them at home, he found they did better in a more suitable climate without any treatment whatever. He obtained the best results in an altitude of about three thousand feet on the plains of western Texas. San Antonio had an excellent reputation as a health resort for tuberculous patients, but recent statistics showed that so many such persons had flocked there that the natives were contracting this disease. Experience showed that these patients did absolutely better when away from many other tuberculous patients and with only such treatment as they could carry out themselves.

G. L. Richards: Many persons afflicted with laryngeal tuberculosis cannot leave home and must be treated to the best of our ability. He had already reported ten cases which were helped, and several apparently cured, by simple local treatment, such as the use of lactic acid and paramonochlorophenol.

S. MacCuen Smith, Philadelphia: In countries like Scotland, despite the moisture, the results seem to be as good as in high and dry altitudes.

Max A. Goldstein, St. Louis, had sent many patients with incipient pulmonary and laryngeal tuberculosis to the western divide, and they had returned home decidedly improved

laryngeally. He had treated three cases of laryngeal tuberculosis in St. Louis, occurring in residents of Denver, and despite the treatment they had become worse; they all improved after having been back in Denver for about six months.

SARGENT F. SNOW said that altitude seemed to act well in a few cases because of the stimulation of the circulation and improvement in the general health. Like Dr. McReynolds he did not give his cases of laryngeal tuberculosis local treatment, but sent them to a moderate elevation, about two thousand feet, and if they did not do well there they were sent to a higher altitude. Many of his cases had done well in the Catskill and Adirondack mountains.

M. D. LEDERMAN firmly believed that the high altitude treatment was very promising. It was doubtful if tuberculosis was ever primary in the larynx. Outdoor treatment was most important, and extensive medication was contra-indicated.

DR. LEVY: Of course no one climate is suitable for all cases. As a rule, the cases developing the disease in Colorado are obliged to seek other climates for even temporary relief. The stage of the disease and the patients' financial condition must always be taken into account before sending them to some special region for climatic treatment.

BIBLIOGRAPHY.

The reader who notes any omissions or errors will confer a favor by sending corrections to Dr. W. U. Reynolds, 320 Manhattan Ave., New York.

5 Am. J. of M. Sc. (Phila.).
6 Am. J. of Ophthalm. (St. Louis).
7 Am. J. of Physiol. (Boston).
9 Am. Medicine (Phila).
12 Anat. Anz. Centralb. (Jena).
15 Ann. de la Policlin. de Paris.
21 Ann. des Mal. de l'O., du Lar., du Nez et du Phar. (Paris).
22 Ann. d'Oculistique (Paris).
23 Ann. d'Ophtalmol. (Paris).
25 Ann. di Med. Nav. (Roma).
26 Ann. di Ottalmologia (Pavia).
28 Ann. of Ophthalmol. (St. Louis).
29 Ann. of Ot., R. and L. (St. Louis).
33 Arb. aus Anat. Inst. (Wiesbaden).
34 Arb. a. d. Chir. Klin. d. Königl. Univ. (Berlin).
36 Arch. of Ophthalm. (N. Y.).
37 Arch. of Otol. (N. Y.).
38 Arch. d'Ophtalmol. (Paris).
39 Arch. de M. et de Chir. Sp. (Paris)
40 Arch. de M. Experim. et d'Anat. Pathol. (Paris).
42 Arch. Internat. de Lar., de l'Ot., et de Rhinol. (Paris).
46 Arch. f. Anat. u. Phys. (Leipzig).
47 Arch. f. Augenh. (Wiesbaden).
48 Arch. f. Ohrenh. (Leipzig).
49 Arch. f. Lar. u. Rhin. (Berlin).
50 v. Graefe's Arch. f. Oph. (Leipzig)
52 Arch. f. Mic. Anat. u. Ent. (Bonn).
53 Arch. f. d. Gesam. Phys. des Mensch. u. d. Thiere. (Bonn).
54 Arch. f. Pathol. Anat. u. Phys.
56 Arch. Ital. di O., R. e L. (Torino).
57 Arch. Ital. di Lar. (Napoli).
58 Arch. di Ottalmol. (Palermo).
65 Atti delle Accad. delle Sc. M. e Nat. (Ferrara).
75 Beitrage z. Augenh. (Hamburg).
80 Brain.
82 British Med. Journ.
85 Buffalo M. Jour.
86 Bull. de Lar., Ot., et Rh. (Paris).
88 Bull. of Johns Hopkins Hosp. (Balt.).
98 Centralbl. f. Pr. Augenh. (Leipzig).
105 Clinical Journal (London).
120 Edinburgh Med. Journal.
125 Gaceta Medica (Mexico).
126 Gac. Med. Catalana (Barcelona).
128 Gaz. des Hôp. (Paris).
131 Giorn. Internaz. delle Sc. M. (Napoli).
132 Giorn. delle Assoc. Napol. di Med. e Nat.
133 Giorn. delle R. Accad. di M. id Torino.
139 Guy's Hosp. Gaz. (London).
141 Hahnemannian Mo. (Phila.).
144 Hom. E., E., and T. Jour. (N.Y.)
155 Indian Lancet.
156 Indian Med. Gaz. (Calcutta).
157 Indian Med Rec.
172 J. de Phys. et de Pathol. Gen. (Paris).
173 J. of Advanced Therap. (N. Y.).
175 J. of Am. Med. Assn. (Chicago).
176 J. of Anat. and Phys. (London).
178 J. of Brit. Hom. Soc. (London).
182 J. of E., E., and T. Dis. (Balt.).
183 J. of L., R., and O. (London).
184 J. of Ment. and Nerv. Dis (N.Y.)
185 J. of O., O., and L. (N. Y.).
188 Am. J. of Physiol.
193 Klin. Monatsbl. für Augenh. (Stuttgart).
195 Klin. Vortr. und Geb. d. Otol. u. Phar. Rhin. (Jena).
200 La Clin. Ophtal. (Paris).
210 La Parole (Paris).
215 Laryngoscope (St. Louis).
220 Le Progrès Méd.
225 London Lancet.
229 Lo Sperimentale (Fierenze).
235 Med. and Surg. Jour. (Boston).
240 Medical News (N. Y.).
242 Med. Press and Circ. (London).
245 Medical Record (N. Y.).
250 Medical Times (London).
260 Mind (London).
265 Monatsch. f. Ohrenh. (Berlin).
275 N. Y. Eye and Ear Infirm. Rep.
280 N. Y. Med. Jour.
283 N. Y. State Jour. of Med. (N. Y.)
285 No. Am. Jour. of Hom. (N. Y.)
290 Nouv. Icon. de la Salpet. (Paris).
299 Ophthalmic Record (Chicago).
300 Ophthalmic Review (London).
310 Phila. Med. Jour.
313 Post-Graduate, The (N. Y.).
315 Proc. of the Phila. Pathol. Soc.
317 Proc. of the Roy. Soc. (London).
330 Receuil d'Ophtalm. (Paris).
333 Revista Espec. Med. (Madrid).
355 Schmidt's Jahrb. d. in- u. ausland ges. Med.
356 Sei-I-Kwan Med. Jour. (Tokio).
400 Univ. of Pa. Med. Bul. (Phila.).
450 Zeitschr. f. Augenh. (Berlin).
455 Zeitschr. f. Ohrenh. (Wiesbaden).
460 Zeitschr. f. Physiol. u. Phys. d. Sinnesorg. (Leipzig).

OPHTHALMOLOGY.

Is the Dislocation of the Lens into the Vitreous ever Justifiable? Suker, 6, June. Discussion.
Sympathetic Ophthalmia, with Complete Recovery of Both Eyes. Vail, Idem. Discussion.
Misuse of Glasses. Hotz, 6, May.
Toxic Amblyopia. Reynolds, Idem.
Pallor of Temporal Segment of Optic Disk Due to Other Causes than Tobacco and Alcohol. Stillson, Idem. Discussion.
Implantation of a Wire Ball within the Orbit. Landman, Idem.
Goiter: Medical and Surgical Treatment. Scully, 9, May 17.
Mauthner's Method of Diagnosing Paralysis of Depressors or Elevators of the Eyes. Snydacker, 28, Apr.
Toxic Amblyopias. Nuel (Marlow, Trans.), 28, Apr.
A Theory of Binocular Perspective. Verhoeff, Idem.
Glaucoma—Experimental Study. Coburn, 28, Apr.
Two Cases of Glaucoma. Hansell, Idem.
Note on the Visual Field in Glaucoma. Friedenwald, 28, Apr.
Treatment of Corneal Ulcerations with Subconjunctival Injections—Their Value. Dunn, 36, May.
Stab Wound in Occipital Region, Followed by Homonymous Hemiopia. Friedenwald, 36, May.
The Simultaneous Occurrence of Changes in the Retina and Choroid. Haas, 36, May.
Observations on a Case of Total Color Blindness. Nagel (Holden, Trans.), 36, May.
Phlegmon of Orbit after Extraction of a Tooth. Hallaner (Holden, Trans.), 36, May.
On the Elastic Tissue in the Human Eye. Kiribuchi, 36, May.
Gummatous Invasion of the Bone, Skin, Conj., Ret., and Uv. Tract. Recovery. Barkan, 36, May.
An Eyelash in the Anterior Chamber, Removal. Dunn, 36, May.
Clearing Up of Traumatic Cataract. Mills, 36, May.
Pathogénie des amauroses post-hémorrhagiques. Assicot, 38, Mai.
Anatomie pathologique et pathogénie de la kératite congénitale. Terrien, 38, Mai.
A New Study of Snake Venom. Dr. Simon Flexner, 88, June.
Proptosis. Higgins, 139, May 10.
The Eye Lesions Consequent upon Measles. Helfrich, 141, April.
Injury to the Eye from a Flying Top. Hasbrouck, 144, June.
Vernal Conjunctivitis. Fox, 155, Apl. 21.
Change of Refraction from Compound Hypermetropic to Compound Myopic Astigmatism—Glaucoma. Fox, 155, June 9.
Eyesight in the Army. Editorial, 156, Apl.

Peculiarity of Vision, with Illustrative Cases. Riley, 157, May 28.
Consideration of the Stenopaic Slit and Pin-Hole Disk Method for Determining Pupillary Distances of Lenses. Beebe, 185, May.
Oculo-Motor Paralysis. Seidlitz, Idem.
Sclerotomy, Anterior and Posterior; When Indicated in Glaucoma; Method of Operating. Webster, 240, May 17.
The Fitting of Spectacles Not Construed as the Practice of Medicine. App. Court, 2d. Dist. Illinois, 240, May 17.
Neurectomy for Facial Neuralgia. Magruder, 240, June 21.
Empyema of the Antrum of Highmore with Ptosis and Diplopia, etc. Hoople, 245, June 28.
Dieulafoy's Treatment for Exophthalmic Goiter. 280, May 24.
Considerations on the Hygienic and Prophylactic Treatment of Myopia. Duane, 280, June 7.
A Case of Free Cyst in the Anterior Chamber. Denig, 299, May.
Further History of a Case of Fistulous Ulcer of the Cornea. Enucleation. Acute Gran. Conj. and Trach. from Artificial Eye. Würdemann, 299, May.
Simple Method of Suturing the Tendons in Enucleation. Todd, 299, May.
A Compilation of Thirty-two Cases of Glaucoma Reported to the New England Oph. Soc. since its Foundation. The Danger of Mydriasis. Standish, 299, May.
Saddle Bridge Eyeglasses. Jackson, 299, May.
Glaucomatous Excavation of the Lamina Cribrosa without Excavation of the Nerve. (Abstract), 299, May.
Die optische Bedeutung des Accommodation Spieles der Pupille. Weidlich, 47, xlv. 2 H.
Cystenbildung in der Linse. Broxner, 47, xlv. 2 H.
Ueber das vorkommen infectiöser äusserer Augenentzündungen im westfälischen Industrielezirk. Idem.
Lidbildung und Transplantation in der Augewärtzlichen Praxis. Meyerhof, 47, xlv. 2 H.
Abhängigkeit des Astigmatismus Corneæ von der Schädelbildung. Seggel, 47, xlv. 3 H.
Pseudoglaukomatöse Excavation des Sehnerven-Eintritts. Glauning, Idem.
Ueber die Vorbereitung des Lidrandes und der Cilien für Bulbus-Operationen. v. Pflugk, Idem.
Ueber Jodoformvergiftung mit besonderer Rücksicht auf deren Erscheinungen am Auge. Mohr, 47, xlv. 3 H.
Klinische und bakteriologische Beobachtungen über den acuten Bindhautkatarrh. Pes, Idem.
Ueber das Sehen mit längsdisparaten Netzhautenmeridianen. Weinhold, 50, liv. 2 H.
Zur Localisation der einseitigen Ophthalmoplegia exterior. Solomonsohn, Idem.

Ueber die operative Behandlung hochgradiger Kurzsichtigkeit mittels der primären Linearextraction der klaren Linse und ihre Erfolge. Voigt, 50, liv. 2 H.
Ein Beitrag zur Lehre von der optischen Localisation bei Blindgeborenen. Schlodtmann, Idem.
Klinisch-statische Beiträge zur Ætiologie der hochgradigen Kurzsichtigkeit. Idem.
Ueber Opticustumoren. Pagenstecher, Idem.
Die Atrophie der Aderhaut im kurzsichtigen Auge. Salzmann, Idem.
Ueber die Entwicklung der Binnenmuskulatur des Auges. Herzog, 52, 60 B. 4 H.
Studien über das Binocularsehen der Wirbelthiere. Tschermak, 53, 91 B. 1 u. 2 H.
Uber die hereditär-syphilitischen Augenhintergrundsveränderungen bei Angeborener Lues. Sidler-Huguerin, 75, 51.
Pigment-Beschläge auf Iris und Descemet als Früh-symptom eines Aderhaut-Sarcoms. Fehr, 98, Mai.
Angio-sarcome de la rétine. Teillais, 22, Mai.
Quelques observations de sympathectomie dans le glaucome. 22, Mai.
Lésions de la glande lacrymale palpébrale dans le larmoiement hypersécrétoire. Terson et Lefas, 21, Juin.
Note sur les verres à la Chamblant. Sulzer, 22, Juin.
Conceptions ophtalmologiques personnelles de Rhazes dans le Hawi. Pergens, 22, Juin.
Perforation de l'iris, corps étranger de la cristalloïde anterieure. Mazet, 22, Juin.
Disposition du tissu élastique dans le système trabéculaire scléro-cornéen et rapports de ce dernier avec la sclérotique, le tendon du muscle ciliaire et la membrane de Descemet. Vollaro, 38, Mai.
De certaines dystrophies de la cornée et du limbe conjonctival. Panas, 38, Mai.
Terminaison paracristallinienne d'une artère hyaloïdienne persistante et perméable. Van Duyse, 38, Mai.
Kératites suppurative d'origine infectieuse. Panas, 38, Juin.
La suppression du pansement des opérés de cataracte. De Wecker, 38, Juin.
Fibro-chondrome de l'orbite. Extirpation par le cul-de-sac supérieur, avec conservation du globe et de la vision. Fromaget, 38, Juin.
Influence de l'excitation du sympathique cervical sur l'ensemble de la réfraction de l'œil. Terrien et Camus, 38, Juin.
De la nécessité d'une intervention radicale et opportune dans les végétations adénoïdes et des funestes conséquences de cette affection abandonnée à elle-meme. Suarez de Mendoza, 39, Mars.

Clinique ophtalmologique des Quinze-Vingts—Les Blépharites. Trousseau, 128, 5 Juin.

De l'augmentation de toxicité des cultures diphtériques par association au bacille de Loeffler d'une espèce du genre actinomyces. Finck, 172, 15 Mai.

Extraction de cataracte suivie d'érysipèle du nez et de la face. Neustatter, 200, 25 Mars.

Les signes oculaires unilatéraux du goître exophtalmique. Terson, Ibid., 25 Mars.

Atrophie des nerfs optiques d'origine saturnine chez un ouvrier électricien travaillant à la fabrication des accumulateurs. Guilbert, Idem, 25 Mars.

Tuberculose cutanée et tuberculose du tractus uveal. Amputation du segment anterieur et éviscération de l'œil. Fromaget, Idem, 10 Avril.

L'exophtalmie unilatérale dans la maladie de Basedow. Trousseau, Idem, 10 Avril, 10 Mai.

Deux cas de buphtalmos dans la même famille. Guiot (clinique), Idem, 25 Avril.

Gliome monolatéral de la rétine chez un enfant de 4 ans. Sureau, 200, 25 Avril.

Technique des injections de paraffine solide. Broeckaert, 200, 25 Avril.

Les complications orbitaires et oculaires de sinusites. De Lapersonne, Ibid., 10 Mai.

Rapport sur la cécité et les aveugles en France. Trousseau et Trug, Ibid., 10 Mai.

La Valeur analgésique des injections temporales de dionine. Terson, Ibid., 10 Mai.

La tatouage substitué à la prothèse oculaire. De Wecker, Ibid., 25 Mai.

L'opération de la cataracte secondaire. Pflüger, 25 Mai.

Il siero di Marmorek in terapia oculare. Attanasio, 58, Maggio-Giugno.

L'indice di refrazione dell'umore aequeo nell'occhio irritato e in quello opposto. Tornabene, Idem.

Osservazioni su alcuni rimedi nuovi in terapia oculare (aspirina-dionina-adrenalina-acidopirico.). Re, Idem.

Contributo alla casuistica della dacrioadenite acuta. Grimaldi, 131, 30 Aprile.

Contributo alla patogenesi del gozzo esoftalmico. Tedeschi, 133, Ap-Mag.

Sulla struttura del vitreo embrionale e de'neonati sulla matrice del vitreo e sull'origine della zonula (Continuasione.) Addario, 26, anno xxxi., F. 3°, 4°, 5°.

Nota sopra una particolare disposizione dei segni ottometrici atta ad eguagliarne il Rischiaramento nelle determinazioni del visus a luce artificiale. Colombo, 26, an. xxxi., F. 3°, 4°, 5°.

Amaurosi da avoelenamento per funghi. Valenti, Idem.
Il tatuaggio della cornea con speciale riguardo a quello vario-printo ed a quello delle palpebre. Cofler, 26, an. xxxi. F. 3°, 4°, 5°.
Un nuovo metodo operativo di tarsorafia. Bossalino, Idem.
Melanosarcoma della plica semilunare. Contributo clinico ed anatomico. Berardinis, 26, Ano xxxi. F. 3°, 4°, 5°.
Studio comparativo fra i toteri del siero di sangue e degli umori endoculari. Gatti, Idem.
Della rottura della capsula posteriore del cristallino. Cofler, 26, An. xxxi. F. 3°, 4°, 5°.
Contributo alla patogenesi del tracoma. Cannas, Idem.
L'operazione di cataratta negli individui affetti da dacriocistite. Angelucci, 58, Jugeio-Agosto.
L'acido picrico nelle congiuntivite blenorragiche dei neonati. Re, 58, Juglio-Agosto.
I Microrganismi delle congiuntivite. Corsini, Idem.
Emianopsia bilaterale omonima destra e cecita verbale. Petella, Idem.
Un caso de lupus de la cara curado con los royos Röntgen. César Cornas y Agustin Prió, 126, 31 Mayo.

OTOLOGY.

Suppurative Otitis Media and Some of its Dangers. Belt, 9, May 24.
The Ear from a Medico-legal Standpoint. Scheppegrell, 9, June 28.
Sources of Error in Functional Tests of Hearing. Andrews, 215, April.
A New Field of Hearing Chart. Vail, 215, May.
Pneumatic Massage in Aural Practice. Pynchon, Idem.
Temperature after Mastoid Operation. Analysis of 100 cases. Harris, 29, May.
Inferior Occipital Plate of the Mastoid, with Especial Reference to Bezold's Mastoiditis. Dunn, 37, Apr.
Suppurations in the Labyrinth. Hinsberg (Jordan, Trans.) Serial, 37, Apr.
Tension Anomalies in the Sound-Transmitting Apparatus of the Middle-Ear. Blake, 37, April.
Cerebellar Abscess after Infection through the Labyrinth. Meningitis. Autopsy. Knapp, 37, April.
Toxæmia from Suppuration in the Temporal Bone. Eulenstein, 37, April.
Indications for the Radical Mastoid Operation, with a Description of its Technique, Renner, 85, June.
Paraffin Injections. (Trans. fr. Hospitals-Tidende), 85, June.
Prevention and Treatment of Middle-Ear Suppuration. Fagge, 105, May 28.

Zur Anatomie des Gehörorgans der Cetacea. Denker, 33, lxii.
Zur Frage des Vorkommens von Glycosurie in Folge von Otitis. Grunnert, 48, 55 B. 3 u. 4 H.
Ueber extradurale otogene Abscesse. Braunetim, Idem.
Ueber die Anpassung des Gehörorgans der Wasser-Säugethiere an das Leben im Wasser. Hennicke, 265, Mai.
Ueber Störungen des musikalischen Gehors. Alt, 265, Juni.
Zur Drucktamponfrage bei Otitis externa furunculosa. Lamann, 265, Juni.
Zur Manifestation der traumatischen Hysterie am Gehörorgan. Barth, 455, xli. 2 H.
Eine Rhythmus-Theorie des Hörens. Adler, Idem.
Persönliche Erfahrung über einen acuten Anfall von Autophonie. Knapp, 455, xli. 2 H.
Ueber die Anwendung der rotirenden Fraise bei der Behandlung chronischer Mittelohreiterungen. Strum, Idem.
Zur pathologischen histologie des Ohrlabyrinthes mit besonderer Berücksichtigung des Cortischen Organes. Alexander, 48, B. 56, H. 1 u. 2.
Kiefergelenkserkrankung als Ursache von Otalgia nervosa. Kretschmann. Idem.
Unzureichende einwände gegen neue Gesichtspunkte in der Mechanik der Hörens. Idem.
Surdité et diplégie faciale par fracture double des rochers. Lannois et Vacher, 21 Mai.
Thrombo-phlébite du sinus latéral droit. Operation, Mort. Furet, 21, Mai.
Recherches sur la bactériologie des otites moyennes aiguës. Cossieu, 21, Mai.
Contribution au diagnostic des cellulites mastoïdiennes-postérieures. Toubert, 21, Juin.
Mastoïdite aiguë; intervention incomplète; abcès extradural consécutif; intervention; guérison. Maget, 21, Juin.
Surdité hystérique unilatéral datant de cinq ans chez une malade atteinte d'épilepsie Jacksonienne. Chavanne, 21, Juillet.
Otite chronique et cholesteatome paralysie faciale. Mastoidite de Bezold, abcès de la nuque, et ostéite de l'occipital; mort de méningite. Grivot, 21, Juillet.
Traitement de l'otite moyenne aiguë suppurée. Moure, 21, Juillet.
L'adrénaline. Sa valeur thérapeutique. King, 21, Juillet.
Résection cranienne pour ostéomyélite de l'écaille du temporal, d'origine otique. Laurens, 21, Juillet.
Contribution à l'étude de l'usage de la sonde en gomme dans les affections catarrhales chroniques de la trompe d'Eustache et de l'oreille moyenne. Melzi, 42, Mars–Avril.
Mesure de l'acuite auditive. Marage, Idem.

Fausse otite suppurée par ganglions du cou ouverts dans le conduit. Mounier, 42, Mai–Juin.

Contribuzione alla patologia e alla chirurgia dei tavolati profondi o durali dell'apofisi mastoide, con casuistica. Cozzolino, 56, vol. xiii. 1° Fas., 6 Maggio.

Sulla flora batterica dei seni nasali e dell'orecchio medio. Calamida e Bertarelli, 56, vol. xiii. 1° Fas., 6 Maggio.

Una pinza osteotoma per l'esportazione della parte profonda del condotto uditivo asseo nelle operazioni radicali. Citelli, 56, vol. xiii. 1° Fas., 6 Maggio.

Sopra un caso di meningo-mielite di origine sifilitica. Colmayer, 131, 15 Giugno.

Contributo alla chirurgia cranio-cerebrale. Jacobelli, 131, 15 Giugno.

Sulla flora batterica dei seni nasali e dell'orecchio medio. Calamida e Bertarelli, 133, Ap.–Mag.

La fisiologia dell'orecchio medio in rapporto alla chirurgia delle otiti secche. Unvoli, 56, vol. xiii. 2° Fas.

Endotelioma della fossa nasale con tubercolosi. Calamida e Citelli, Idem.

LARYNGOLOGY AND RHINOLOGY.

Empyema of Maxillary Antrum in an Infant Aged Nine Months. Shirlow, 183, June.

Contact Irritability of Muscles. Zoethout, 7, June 2.

Empyema of the Antrum of Highmore with Ptosis and Diplopia, etc. Hoople, 245, June 28.

Modifications of the V-Shaped Operation for Deflection of Septum. Kyle, 9, May 31.

Unusual Case of Nasal Granuloma. Myers, 29, May.

Laryngeal Chorea. McCaw, 29, May.

Enormous Naso-Pharyngeal Soft Fibroma. Holmes, 29, May.

Congenital Fistula of External Nose. Pierce, 29, May.

Empyema of the Frontal Sinus. Richards, 29, May.

Pharyngo-Mycosis Leptothrica, or Hyperkeratosis Pharyngis. Beck, 29, May.

General Consideration of Hyperplasia of the Lingual Tonsils. Oppenheimer, 29, May.

Lithæmic Naso-Pharyngitis and Other Systemic Disturbances. Stucky, 29, May.

Unusual Case of Naso-Pharyngeal Adenoids. Munger, 29, May.

Frequency of Ethmoiditis in So-Called Nasal Catarrh. Shields, 29, May.

Septum Operations under Cocain and Nitrous Oxid Gas. Booth, 29, May.

Etiology of Deformities and Deviations of the Nasal Septum. Ballenger, 29, May.

Der Nucleus Salivatorius Chordæ tympani (Nervi intermedii). Kohnstann, 12, 20 Juni.
Ueber die Nasenmuschel der Monotremen. Zuckerkandl, 12, 4 July.
Die Killian'sche Radicaloperation chronischer Stirnhöhleneiterungen. Krauss, 49, 13 B. H. 1.
Zur pathologischen Anatomie der hypertrophischen unteren Nasenmuschel. Citelli, Idem.
Zur Durchleuchtung der Stirnhöhlen. Claus, Idem.
Hülfsmittel für den laryngo-rhinologischen Unterricht. Killian, 49, 13 B. H. 1.
Ein Beitrag zur pathologischen Anatomie der Gaumenmandeln. Ritter, Idem.
Zur Operation der adenoiden Wercherungen in Nasenrachen. Fein, Idem.
Ein Fall von Epilepsie geheilt durch Operation von Nasenpolypen und Nabenhöhleneiterung. Grosskopff, 49, 13 B. H. 1.
Eine Schmitterletzung des Kehlkopfs. Barth, Idem.
Ueber Influenza—Pharyngitis und Laryngitis. Treital, 49, 13 B. H. 1.
Arthritis crico-arytaenoidea bilateralis rheumatischen Ursprungs. Melzi, Idem.
Ueber die Mischgeschwülste der Mundspeicheldrüsen. Steinhaus, 54, B. 168, H. 2.
Das Heufieber und andere Formen des nervösen Schnupfens. Fink, 195, April.
Ohr und Sprache oder über Hörprüfung mittelst Sprache. Treitel, 195, Mai.
Ziele und Wege der Funktionsprüfung des Ohres. Zimmermann, 195, Juni.
Ein Fall von plötzlich eintretendem Collaps in Verbindung mit Stillstand der Respiration und Cyanose (Glottisspasmus ?) in Folge von operativer Entfernung von adenoiden Vegetationen. Tracheotomie. Heilung. Mygind, 265, Mai.
Die oberen Luftwege bei Schulkindern. Frankenberger, 265, Mai.
Ueber einen Fall von Sarcom des Kehlkopfs. Hödlmoser, 265, Juni.
Ueber die im Netzhautcentrum fehlende Nachbilderscheinung und über die diesen Gegenstand betreffenden Arbeiten von C. Hess-Kries, 460, B. 29, H. 2.
Weitere Untersuchungen über totale Farbenblindheit. Hess, Idem.
Erklärung zu der vorstehenden und einer früheren Arbeit von C. Hess über totale Farbenblindheit. Nagel, Idem.
Zur Kenntnis des Kehlsaches beine Renntier. Lönnberg, 12, 24 Juli.

Zwei seltene Fälle von Hemicephalia nebst Prosoposchisis, complicirt mit Hernia naso-frontalis. Joukovski, 54, B. 169, H. 1.
Le Stridor laryngé congenital. Merklen et Devaux, 128, 7 Juin.
Vertiges et ictus laryngés (10 Cas). Moncorgé, 21, Mai.
Traitement thermal par applications locales sur le rhino-pharynx. Depierris, 21, Mai.
Rhinolcose avec des lésions des cordons postérieurs de la Moelle. Marie et Guillain, 21, Mai.
Goutte aiguë du pharynx. Lermoyez et Gasne, 21, Mai.
Emploi du chlorure d'éthyle chimiquement pur comme anesthésique général. Vacher, 21, Juin.
Hydrorrhée nasale Unilatérale. Guréison par l'air chaud. Mahu, 21, Juin.
Polype et nodule vocaux associés à des troubles respiratoires et névropathiques chez une institutrice. Natier, 210, April.
Section de la racine sensitive du trijujumeau pour la guérison du tic douloureux. Spiller et Frazier, 201, Mai.
Voie bucco-antrale dans la neurectomie. King, 210, Mai.
Paralysie du larynx d'origine centrale. Dide et Boulai, 210, Mai.
Papillomes récidivants du larynx. Sympson, 210, Mai.
Des embolies par artério-scléroses retiniennes. Galezowski, 330, Mai.
Neurome plexiforme fasciculé amyélinique de la paupière. Lopez, 330, Mai.
De la mensuration graphique de la perméabilité des fosses nasales. Courtade, 15, Mai.
Epilepsie d'origine nasale. Lannois, 21, Juillet.
Contribution à l'étude des phlegmons juxta-pharyngiens. Bar, 21, Juillet.
Du traitement chirurgical de l'ethmoïdite purulente. Guisez, 21, Août.
Paralysie partielle du voile du palais d'origine traumatique. Voisin, Idem.
De l'extirpation du ganglion ciliare. Rohmer, 22, Juillet.
La Névrite optique consécutive à la rougeole. Fage, Idem.
De la nécessité d'une intervention radicale et opportune dans les végétations adénoides et des funestes conséquences de cette affection abandonnée à ellé-meme. Suarez de Mendoza, 39, Mai, Juin.
Sur la thrombose cardiaque avec embolies dans la diphtérie. Deguy et Weill, 40, Juillet.
La Rôle des fosses nasales dans la prophylaxie et le traitement de la tuberculose pulmonaire et laryngé. Mignon, 42, Mars-Avril.
Polype naso-pharyngien guéri par ponctions au galvano-cautère. Boulai, 42, Mars-Avril.
Sur un procédé d'extirpation des amygdales enchâtounées. Escat, 42, Mai-Juin.

Terminazioni nervose nelle mucose dei seni nasali. Calamida, 12, 24 Juli.
Fibrosarcoma della base della lingua. Prota, 56, vol. xiii. 1° Fas. 6 Maggio.
Sulla deformazione del naso per polipi mucosi. Melzi, Idem.
Un caso di peritelioma della mucosa etmoidale. Calamida e Citelli, Idem.
I rimedi proposti per il trattamento della tubercolosi della laringe. Dardano, 56, vol. xiii. 1° Fas. 6 Maggio.
Dui casi di mixoma laringeo. Ferreri, Idem.
Un caso rarissimo di deformità congenital del naso. Longo, 131 15 Mag.
Di un tumore dell'antro d'Higmoro del mascellare di sinistra. Vannelli, 131, 30 Mag.

BOOK REVIEWS.

What a Young Boy Ought to Know. By Sylvanus Stall, D. D., Author of the Self and Sex series to boys and men. Vir Publishing Co., Hale Building, Philadelphia, 1897. Pp. 190. Price $1.00.

Although addressed to boys, into whose hands it can and should be put, this book should be carefully read by every actual or potential parent, mentor, or guardian. It is a sin, sometimes amounting practically to murder of the soul, to allow a boy to pick up his sexual education as best he may from impure companions or even from wrong thoughts and actions permitted and fostered by ignorance. A material percentage of the impure thoughts in boys and young men is the result of natural curiosity. The Self and Sex series of books (eight in all) written for males and females is the most efficient single agent against the social evil that we have seen. J. L. M.

What a Man of Forty-five Ought to Know. By Sylvanus Stall, D. D., Author of "What a Young Man Ought to Know," "What a Young Husband Ought to Know," etc. Vir Publishing Co., Hale Building, Philadelphia, 1901. Pp. 284. Price $1.00.

Probably there are men, and even physicians, who will impulsively deny Dr. Stall's assertion that man as well as woman passes through a climacteric, a "sexual hush," when the balance between tissue waste and restitution is disordered.

It is true, nevertheless, as a little consideration will show.

"Just at what age these changes may occur will depend largely upon the questions of heredity, bodily vigor, the age at which adolescence and maturity were attained, the degree to which one has avoided all forms of excess, the attention given to physical culture," the mode of life and habits of thought, general health and physical powers. Among the indications are: inability to endure prolonged physical or mental exertion in which he once delighted; presbyopia; enlarged prostate, memory less retentive; gray hair, sometimes. Impure thoughts and conversations are enervating to body and mind.

A suggestive, helpful book, that every physician should acquaint himself with, read it all through, and quote to or put in the hands of such patients or friends as he can thus help.

J. L. M.

A Digest of External Therapeutics. With Numerous Formulæ Arranged for Reference. By Egbert Guernsey Rankin, A. M., M. D., Physician to the Metropolitan Hospital, New York. Second edition, revised and enlarged. Boericke & Runyon Co., New York, 1900. Pp. 754. Price $3 50 net; including postage, $3.68.

An excellent book, essential to complete a physician's library. This judgment is confirmed by so prompt a call for a second edition.

We are much disappointed that the occasion was not utilized to add an index of the remedies, formulæ, preparations, and procedures; such would have doubled the handiness of the volume. It is since its publication that the Journal of the American Medical Association suggested the intersection of the linea alba, with the suprapubic crease or fold for spot of election in aspirating the bladder of very fat persons.

Norris and Oliver are quoted as recommending formalin 1 to 1000 or 500 for ulceration of the cornea. We caution against so strong a solution as even 1 to 1000—except one desires to cause severe pain—as even cocain will not render the application painless. We have for years depended upon 1 to 5000 formalin for sterilizing the conjunctival sac, and found 1 to 3000 distressing under cocain.

J. L. M.

VOL. XIV. NOVEMBER, 1902. No. 6.

THE JOURNAL OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

EDITOR,
JOHN L. MOFFAT, M. D.

ASSOCIATE EDITOR,
A. W. PALMER, M. D.

EDITORIAL.

SCOPOLAMIN HYDROBROMATE REDUCES INCREASED INTRA-OCULAR TENSION.

LAST January, on page 36, we added Dr. Chas. Deady's name to that of Raehlmann as authority for the statement that tension is not increased by scopolamin. Dr. Deady writes us that he first took advantage of scopolamin reducing tension upon the suggestion of Dr. F. G. Ritchie.

Raehlmann, in *Klinische Monatsblätter für Augenheilkunde*, 1893, s. 59, stated that "scopolamin exerts no influence upon the intra-ocular tension. Its local use is not followed by any increase in intra-ocular pressure, even if tension is pathologically increased."

In the May, 1895, *Refractionist*, A. G. Hobbs says, under date of September, 1894, "Some have asserted that scopolamin does not increase intra-ocular tension, but its use has not been sufficiently extensive to warrant this statement." He adds, under date of April 15, 1895: "We have used a weak solution in some cases of glaucoma with very small pupils in the early stages in order more thoroughly to examine the retina. We ran the risk in these cases because in no instance had we ever been able to observe any in-

crease in the tension after the use of scopolamin. This effect did not follow in either of these cases, but on the contrary one insisted that the characteristic deep feeling of pressure was relieved. Great care should, however, be exercised in putting this drug into glaucomatous eyes until we more fully understand its great potencies."

Again—"there is nothing more natural than that one should have the preconceived idea that an increase of tension would follow paralysis of accommodation. But upon what is such an idea based? Is it because atropia does it? But why should scopolamin produce this effect? Because atropia does it? As a matter of fact this new mydriatic does not increase intra-ocular tension."

To Dr. F. G. RITCHIE of New York belongs the credit of going a step further and showing that *scopolamin will decrease excessive intra-ocular tension.*

He was one of the first in this country to investigate and publish the effects of this drug; he first used it on January 29, 1894, and published in the July, 1894, number of this JOURNAL "The Use of Scopolamin Hydrobromate in Determining Errors of Refraction," which he had read in April to the County Society. His "Scopolamin Hydrobromate in Increased Intra-ocular Tension," which appeared in the January, 1895, issue of this JOURNAL, is the earliest paper on this subject within our knowledge. In this, on page 67, he said: "The cases that will be cited, and which have been under my observation at the New York Ophthalmic Hospital, certainly present sufficient grounds for believing that the drug in question possesses the property of dilating the pupil and at the same time of reducing the tension."

The use of scopolamin to reduce tension was suggested to Dr. Ritchie by the results he obtained (on or about August 21, 1894) in Case I. He wrote (p. 68), "The re-

sults were such that they aroused in my mind the suspicion that the drug might reduce increased tension, and led me to try it at the first opportunity that presented." On November 3, 1894, he first used it to reduce increased intra-ocular tension (Case II. *loc. cit.*).

Some of Dr. Ritchie's colleagues on the New York Ophthalmic Hospital staff, as well as the writer, substantiate his position, having found hypertension reduced by scopolamin even when eserin has failed to do so.

Some severe cases of poisoning have deterred a number of oculists from using this drug and led to the assertion that it is practically hyoscyamin; this prejudice, however, is not well enough grounded to warrant one's closing his eyes and depriving his patient of the unique advantages this drug affords.

Be particular to get unadulterated real scopolamin hydrobromate (Merck's) through a reliable importer, jobber, and pharmaceutist; use a fresh solution and a weak one. It has been our custom to use a one-fourth of one per cent. solution in adults and one-tenth of one per cent. in children, finding it more satisfactory than any other cycloplegic, with never a symptom of drug intoxication—even when the solution was not fresh.

SOME OBSERVATIONS ON STACKE'S OPERATION.*

THOMAS R. POOLEY, M. D.,

New York.

THE operation of tympano-mastoid exenteration which is now generally known as Stacke's, or the radical operation, is an evisceration of the interior of the bone by making the mastoid, tympanum, epitympanum, and meatus one large cavity with perfectly smooth healthy walls, by removing the external cortex of the mastoid, its entire cancellated structure, the posterior osseous meatus wall, the tympanic membrane, the malleus, incus, and outer wall of the epitympanum.

It is not the intention of this paper to describe the technique of the operation by which this is accomplished, since this is, no doubt, familiar to you all. I will only say that there are two methods, one advocated by Schwartze, Zaufal, and their followers. In the first, you open from behind forward, and that of Stacke opens from in front backward. In the former, that is to say, the Schwartze, you extirpate the posterior superior membranous linings of the osseous meatus. The latter saves them to make a flap for covering exposed bone. For this latter procedure there have been many methods suggested. It is not my purpose, however, to describe them, since all have but one end in view, viz.: the covering of the bare bone and the causing of epidermization of the cavity which is left by the operation.

This operation has been performed not only in chronic

* Read before the American Otological Society, July 15, 1902.

otorrhœas, but also in the surgery of brain disease. In my remarks, however, I will confine myself particularly to its use in the first named. In my judgment the application of this operative procedure to the cure of chronic otorrhœa is becoming too universal and indiscriminate. It is for the purpose, then, of sustaining this argument that this paper has been written.

I shall first point out what I consider the dangers of the operation and the objections to its performance except in carefully selected cases.

The dangers of the operation are by no means few, and may be enumerated as follows:

The wounding of the facial nerve, dura, lateral sinus, and the semicircular canals.

The facial nerve may be wounded on account of its anomalous position, carelessness in chiseling too near the floor of the external canal, or the too tight packing of the wound. In using the middle-ear curette it must not be forgotten that the tympanic walls are often very thin from necrosis and the internal carotid artery, as well as internal jugular vein, is imperfectly protected and liable to be penetrated.

In carrying the operative procedure upward and backward the semicircular canals must be avoided.

In contemplating this operation it must be taken into account that a radical cure is by no means always obtained by one operation. A second operation, or even a third or fourth may be necessary in order to obtain a complete cure of the otorrhœa.

The length of time required for the healing process may vary from three to six months. And lastly, the possibility of permanent impairment of hearing in patients who, before the operation, could hear fairly well.

If, then, we consider the dangers enumerated,—the uncertainty of a radical cure after one operation, the long duration of the after-treatment,—it seems to me that every case of chronic otorrhœa should be most carefully studied before being subjected to such a severe operative procedure. And while I do not wish to detract from the merits of the oper-

ation in well-selected cases, I do desire to express the view that all cases of chronic otorrhœa should not be indiscriminately so treated.

I know that the present trend of opinion is to discountenance altogether a protracted attempt to cure otorrhœa by medication, removal of polypi and intra-tympanic curetting. Nevertheless I venture to say that all of these methods often meet with success, thus avoiding the more radical procedure.

Many cases of chronic suppuration of the middle ear can be healed by vigorous antiseptic treatment, by removing granulations, cholesteatoma in the cavity of the tympanum and the attic by partially removing the attic wall, and such I think must have been the experience of all who have strenuously followed these methods; therefore, while I am an advocate of the radical operation in suitable cases, I agree with Politzer that it is not justifiable when performed for the mere purpose of arresting a discharge—at least, until every effort to stop it by other means has proved unavailable.

Those who are the strong partisans of the operation say that it is not necessarily dangerous in the hands of a skilled operator, nevertheless it is still a serious one, and when we reflect that all operators are not skilled, that we have all kinds, good, bad, and indifferent, it must be conceded that the dangers of operation should not be too lightly taken into account.

I may briefly summarize my view as to when the operation should be performed:

The objective indications may be grouped under two forms: any case of reinfection or of rapid extension of a chronic otitic process, or whenever a grave complication is threatened; the indication is then for immediate operation.

The indication is not immediate when the patient suffers little or no pain and there is no striking symptom in the mastoid, but even here the indication may be to operate if the osseous lesion is extensive.

The subjective symptoms are: persistent and recurrent

pain in the ear or mastoid process, with persistent and fixed pain in the parietal or occipital region, increased by percussion, which frequently points to temporal or cerebellar abscess; vertigo, either permanent or intermittent attacks, which may be due to erosion of the external semicircular canals; well-marked brain symptoms, such as headache, heaviness, pressure, torpor, loss of consciousness, etc.

107 Madison Avenue.

NON-OPERATIVE TREATMENT OF MASTOIDITIS.*

W. C. CONVERSE, M. D.,

Adjunct Professor Diseases of the Eye and Ear, Chicago Homœopathic Medical College.

ANYONE reading the medical journals on the subject of mastoiditis would gather from such titles as—"The advisability of early operative intervention in acute mastoiditis," "The necessity of operative interference in mastoiditis," "Fifty operations on the mastoid with but one death," "The after-treatment of the radical mastoid operation"—that there was but one line of treatment permissible and that surgical.

It is not the object of this paper to prove or attempt to prove that the mastoid operation is unnecessary and uncalled for, for a knowledge of the anatomy of the middle ear and mastoid region will convince one of the ease with which infection may extend from the nose and throat to the middle ear, mastoid cells, and antrum. And if the infection be due to the streptococcus or pneumococcus, such infection may become so severe that nothing but operative intervention will avail, but these severe cases are uncommon and a mild infection is the rule, and it is of this class of cases that I wish to speak. I was convinced of the mildness of most mastoiditis cases when assisting in one of the largest aural clinics in the East. It was then the custom of all the aural surgeons on the staff of the infirmary to class as a mastoid every case that complained of dull heavy pain diffused over the surface of the mastoid

* Read at Illinois Homœopathic Medical Association, Chicago, May 14, 1901.

portion of the temporal bone accompanied by pain on pressure at the tip of the mastoid; especially if the pain was more marked over the antrum these cases were all operated upon, and hence it was possible for aurists to report (as some of them did) seventy cases in a year. In one month I witnessed twenty-three mastoid operations, only three of which had pus in the cells or antrum. In these three cases the mastoiditis was a complication of chronic purulent otitis media of years' standing. During more than four years' service in the Eye and Ear Clinic of the Chicago Homœopathic Medical College, the cases that came to me similar to those I saw operated upon in the Eastern ear clinics I have brought to a successful termination under the following line of treatment:

When the mastoid symptoms are accompanied by acute catarrhal otitis media with a bulging membrana tympani, I always make a paracentesis upon the bulging drum, being careful that I make my incision large enough to permit free exit to the discharge, and follow the paracentesis with a douche of a warm saturated boric-acid solution to favor the free discharge of fluid from the middle ear. In addition to this I prescribe six doses, one hour apart, of merc. dulcis 1^{x} for its laxative effect, occasionally I have substituted one dose of castor oil; for the fever, which in children is usually high, aconite 1^{x} every half hour. If the middle ear is involved, it has been my custom to apply a leech in front of the tragus; if the tenderness over the mastoid is very marked, or if there is any œdema behind the auricle, I apply the leech over the lower portion of the mastoid process; in many instances I have applied them in both places. After the leech or leeches have been used and the hæmorrhage has ceased, I apply cold continuously for forty-eight hours by means of the Leiter coil or aural ice bag. During this period hepar sulph. is a valuable remedy. Usually by the end of thirty-six or forty-eight hours my patients are relieved of the pain and tenderness, and the temperature, where there has been any fever, is normal; all that is necessary to complete the case is silicea

or some form of mercury. Should the above treatment fail to relieve the pain, temperature, and tenderness in forty-eight hours, there is nothing to be gained by further delay, and recourse to surgery is the proper treatment.

The following three brief histories illustrate the treatment and show the results.

Case I.—B. T., aged two years, brought to the clinic by Dr. Carr, had marked œdema over the left mastoid, a purulent discharge from the ear following a parotitis two weeks previous, temperature 102.6. Pressure over the mastoid produced a vigorous protest from the youngster. Ear was cleansed with dioxogen and a warm solution of boric acid. Child was given a dose of castor oil: for the symptoms aconite 1^x and hepar 3^x were given in alternation and an ice bag was applied over the mastoid. This was at the Monday clinic; at the Wednesday clinic the child was much better, œdema was gone, and pressure over the mastoid elicited only a slight movement of the head. Temperature was 99°, hepar was continued, and for the discharge a saturated solution of boric acid in alcohol was used until the following Wednesday, when child was dismissed as well.

Case II.—K. A., aged twenty-five, was referred by Dr. Schaubel, for a purulent discharge from both ears of twenty-three years' standing, a sequel of scarlet fever. There were polypi in both ears, which I removed. With the removal of the polypus from the right ear the discharge ceased and there was improvement in the hearing on that side at once. The discharge suddenly ceased from the left ear, and the patient reported intense pain in the mastoid region, pain so severe he could not sleep; œdema was marked and pressure over the mastoid was exceedingly painful. I gave him six doses of merc. dulcis 1^x, and applied a leech over the mastoid, following this with an ice bag. The next day pain was almost gone and œdema was lessened; in forty-eight hours after the application of the leech and ice bag he was as well as he was before the attack. This was three months ago, and he has had no recurrence of the grave symptoms; he still has a slight discharge from the left ear, for which he is not taking treatment.

Case III.—Chas. G.. aged three and one-half years, when brought to the clinic lay in a stupor, rectal temperature 104.6.

Had a profuse purulent discharge from the left ear, œdema behind the auricle so great that the ear stood at right angles to the head, pressure upon the mastoid caused child to scream out. I advised immediate operation; the mother would not consent, said she had had the child under treatment for several weeks at the Illinois Eye and Ear Infirmary. and they wanted to operate, but she would rather he would die than be operated upon. I went to their home and applied leeches in front of tragus and over the mastoid, gave him a tablespoonful of castor oil and applied ice bag over the mastoid; the next day his temperature was 101°, and at the end of forty-eight hours 99°, the ice bag was on seventy-two hours. The remedies were aconite and hepar. At the next clinic the child was able to walk in; he was under treatment for a month for the purulent discharge. This was four years ago next September. Since then I have treated other members of the family, and they report that he is all right, no return of pain or discharge.

34 Washington Street.

SUPERMEDICATION.—ILLUSTRATED.

S. C. DELAP, M. D.,

" Oh, wad some power the giftie gie us
To see oursels as ithers see us."

WHEN, perchance, the profession of medicine is disposed to indulge in the pastime of introinspection, the process might aptly be compared to that of the fashionable lady before the glass, a dress performance with vanity as the inspiring motive. When this autoview is enforced by popular clamor, it savors the admiration of the proud mother for her young hopeful: and, after the anthem of praise for the accomplishments of traditionary and scientific medicine, comes the refrain of anæsthesia, Listerism, and serum-therapy.

The time of medical gatherings is largely consumed in the exhibition of professional and individual achievements, and it is generally only the pointed question, inspired by failure, that may induce the debaters to discuss the fact that medicine is not one continual succession of triumphs. In private, however, most of us are willing to concede that our competitors are not uniformly successful and that much of our work is the correction of their errors. Could our competitors observe us in this altogether-too-frequent rôle, their inspiration might be something after the manner of the gifted Scotch poet.

We tell each other of our cures, sometimes of what cures, till a philistine might reach the inference that medicine never does anything else but relieve and cure the patient. But the philistine was not named in vain, he is not in the camp of the adversary merely for our amusement, nor need we be

Kansas City, Mo.

too solicitous about the enactment of laws for his control. He is a medical skeptic and the profession has made him one. It might be worth while to mingle with him for a period, enter into his mode of thought, and think some great professional thoughts after him. It might transpire that we would both be converted and that our differences would prove barriers burned away.

The philistine may be a homœopath, an eclectic, a hydropath, a preacher of suggestive therapeutics or mind cure, a hypnotist, a Christian Scienitst, an osteopath, a medical skeptic, or even an old-school doctor; for, at heart, there are more medical skeptics in the regular profession than among any other class of people. The rank and file give medicine generally for the fee, and not for the good they expect the drug to accomplish. Is it any wonder that many classes have come to look upon medicine as not only a fraud but a menace to life? It was not the humor of the wag that instituted the saying that the grave covers the doctor's mistakes. It was the bitter fact, and this same fact to-day is rapidly filling the ranks of the dissenters from traditionary medicine.

It is stated that a movement is on foot to amalgamate the schools of medicine, that the leaders of the old school and some of those in control of the national homœopathic organization are now assiduously at work for the consummation of such a purpose. Were such a movement successful, it would only prove a political one. As long as the old-school doctor gives calomel in doses that undermine and destroy health for conditions that the homeopath gives nux 3^{x} or 200 and cures,—facts that every one of us knows are of daily and hourly occurrence, not singly, but in multitude,—how can we meet in consultation in that necessary spirit of harmony and mutual concession, with the best interests of the patient in view? Such a consultation would mean the absolute surrender of one or the other of the consultants, or a quarrel at the bedside of the patient; it would not matter whether both subscribed to some general or meaningless code, or belonged to the same national society.

On the 21st day of August, 1901, there came into my office. accompanied by a mutual friend, a lady of middle age, who gave a history of conjugal infelicity, a residence for months at Hot Springs, Ark., and almost continuous treatment by old-school physicians for what may have been properly diagnosed syphilis. During the progress of the disease, and likewise the treatment, there occurred a complication in the form of plastic iritis of the right eye. This was also treated by an old-school oculist, a member of an excellent faculty of a successful and reputable old-school medical college. During the treatment, or possibly in the lapse of frequent and continuous treatment, the iris became adherent to the anterior capsule of the lens. This was followed by glaucomatous attacks at frequent intervals, so that the eye was continually in a state of inflammation. It was this condition that brought the patient to me.

Examination of the eye showed loss of sight, but there were perception of light, complete posterior synechia, increase of tension, pain in eyeball extending into head, of crushing character in temples and oppressive in region of cuneate lobe. Gums had receded from teeth, breath was fetid, tongue coated white, absolute loss of appetite and diarrhœic stools. Examination of the nose revealed swollen turbinated bodies, especially the anterior portion of the left middle turbinate, purulent discharge particularly located in the middle meatus of the left side, and some that apparently came from the superior meatus of the same side.

Atropin in the strongest possible doses made no impression upon the adherent iris, but afforded some relief to the pain in the eye and that in the region of the cuneate lobe. The crushing pain in the left temple and extending up along the region of the third frontal lobe was not benefited by the treatment of the eye. Suspecting ethmoiditis, I began the treatment of the nose, the use of sprays, antiseptic solutions, and a careful cleansing of the nasal structures. In this way the swelling of the middle turbinate of the left side was reduced, so as to allow free drainage and proper cleansing. While some benefit attended this treatment, the pain continued very great. It should have been stated at the outset that I made a refraction of the left eye and found a hyperopia of $2\frac{3}{4}$ diopters, which I corrected by the proper glass, securing vision of $\frac{20}{80}$. In a month vision had increased to $\frac{20}{40}$ in the left eye.

The case was one of those partnership arrangements that occurred incidentally, as often happens to the specialist. The patient came to me solely for special treatment. She continued under the care of her family physician, an old-school doctor, and I was most loath to disturb that relation, though her family physician would never have sent her to me and would have felt no compunctions in stopping my treatment, had he felt secure in adopting such a course.

I found that she had taken both mercury and iodide of potassium in large doses for a long time, that latterly she had only taken the iodide. On minute inquiry I learned that she was taking a teaspoonful of a saturated solution of the iodide three times a day. As the common teaspoon contains much nearer two drams than one, I concluded she was taking about 100 grains of iodide three times a day. I asked her, for a week, to reduce the doses one-half. This also reduced the pain in the temple. The next week I asked her to stop the medicine, while I gave her something for the condition of the eye. I gave her nitric acid 3^{x}. The pain became much better. I asked her to continue my medicine as long as she felt better or continued to grow better. It was used entirely afterward, with final and complete relief of pain.

Her physician had explained to her that the great pain in the left temple was due to a carious condition of the skull inside, caused by syphilis. After drug effects had passed away there continued marked pain at the root of the nose, along the infra-orbital region of the left side and extending to the temple, also of the left side. It was my opinion that this pain was due to ethmoiditis, caused and aggravated by the iodide of potash, that the stoppage of the drug and the treatment gradually brought about a normal condition.

The recurrences of glaucoma in the right eye were so frequent that on November 16, 1901, I made an iridectomy of that eye. The operation was entirely successful, and there has been no recurrence up to the present date. But the plastic exudate so completely covered the anterior capsule that no improvement of sight has resulted.

The vision in the left eye has become normal. There lingers some discharge from the nose, aggravated by a recurrence of the old pain in the temple, whenever a cold is contracted. A treat-

ment or two of the nose affords relief, and then the patient neglects treatment. Owing to remaining congestion of the nasal structures and the constitutional weakness induced by the "mixed" treatment of mercury and the iodide, the patient is still susceptible to changes of temperature and catches cold easily.

It is my desire to call attention to several points in this briefly described and imperfectly recorded case.

Among old-school physicians it is axiomatic that the lesions of syphilis must be met by mercury or iodine, or both together in what is denominated the "mixed treatment." This method of treatment was "pushed" for more than a year, with the result already described. For the last eight months neither of these drugs has been used, even in the most minute dose, with continued and uninterrupted improvement.

I have become fully impressed with the belief that too many homœopaths have imbibed the teachings of old-school authors in the treatment of syphilis, and that many of the symptoms of the patient are erroneously attributed to the disease and should be regarded as drug provings. Notwithstanding these convictions, I must confess that I felt a little timorous in totally stopping the potassium iodide, but I regained confidence with the uniform improvement of the patient. Here was a woman made sick and kept in a state of intense suffering by drugs administered in doses that are altogether too common. Her cure was wrought more by the exclusion of poisonous drugs than by anything else that was done for her. Is it any wonder that the sects and number of those who deny the utility of drugs are rapidly on the increase, and that they can afford to laugh at the antics of those who clamor for a more rigorous enforcement of tyranical medical laws? Let the profession come back to the invaluable laws of health, enforced by the teachings of physiology, biology, physics, chemistry, and toxicology, and forever abandon the idea that a cure is wrought BY THE ADMINISTRATION OF POISONS IN POISONOUS DOSES; let it be remembered that a poison given to a sick

man is more dangerous than one given to a well person, that a plant is made to grow by the gentle supply of nourishment in accordance with botanical law, and that a child grows in obedience to laws that are almost identical, not by the exhibition of mercury and iodine which are alike destructive of all cells, whether vegetable or animal, and have been the curse of medical practice for hundreds of years, but by utilizing diet in accordance with the laws of hygiene, fresh air that is altogether too much excluded from the sick-room, sunshine that is the source of all life, and a physician who has the intelligence to utilize all these and use a drug as a *remedy* and *never as a poison.*

1214 Main Street.

OCULAR HEADACHE.*

EDGAR J. GEORGE, M. D.,

Associate Professor of Ophthalmology and Otology to the Chicago Homœopathic Medical College.

TIME and time again facts are fully demonstrating that headaches, cranial neuralgia, and other reflex conditions are caused by eye strain. The object of this paper is to explain in a limited manner the source, reason for, and importance of correcting errors of refraction, as well as those of the ocular muscles. With every movement of the eye several of the extrinsic muscles are called into action at the same time, both eyeballs are moved simultaneously in all directions with perfect harmony and visual parallelism; in other words, there is always maintained in health an exact muscular equilibrium.

Individuals who suffer most from ocular headaches are of a neurotic temperament, highly sensitive, energetic, and active. In spirits they are either up or down according to their moods and surroundings.

Headaches from eye strain may appear in early childhood when first entering upon school work, or may not be present until later in life. Patients having enjoyed previous good health can become neurotics from persistent eye strain, physical debility, or mental disease, after which headaches may develop.

Defects that cause headaches are hypermetropia, all forms of astigmia, and heterophoria or muscular insufficiency. With hypermetropia and astigmia the ciliary muscle is never in a state of rest even when, as with the

* Read before the Illinois Hom. Med. Assn.

normal eye, the individual is looking at a distance. Distant vision should be the rest period, consequently there is a persistent muscular strain with defective eyes while the individual is awake, aggravated by over exertion when the accommodative power is called into use for near work; thus it can be seen how headaches do occur as well as other reflex symptoms from over muscular taxation.

With defects of the motor muscular system the strain is equally persistent, and, like ocular defects, there is no relief except during sleep. The patient is unconciously and continually making an effort to keep the visual lines parallel, consequently, as in hypermetropia and astigmia, there is persistent waste of nerve energy from muscular strain.

For better understanding let us take up the nerve distribution briefly and solve the problem how eye strain can cause headaches.

The long and short ciliary nerves that supply the ciliary muscle arise partly from the nasal branch of the ophthalmic, a branch of the fifth nerve (a nerve of not only motion, but sensation) and partly from the ophthalmic ganglion. The ophthalmic ganglion not only receives a sensory root from the nasal, but also a sympathetic from the cavernous plexus and a motor from the third nerve.

Irritation from over taxation of the ciliary muscles is carried through the long and short ciliary nerves to the ophthalmic ganglion and nasal branch of the fifth. The sympathetic is disturbed through the sympathetic root from the cavernous plexus.

The fifth nerve gives off the frontal branch that divides into the supratrochlear and supraorbital, the latter terminates in muscular, cutaneous, and pericranial branches. The corrugator supercilii and occipito-frontalis muscles are furnished with common sensation by these branches. The cutaneous branches supply the integument of the cranium as far back as the occiput. They are at first situated beneath the occipito-frontalis muscle, the inner branch perforates the frontal portion and the outer branch its tendin-

ous aponeurosis. The pericranial branches are distributed to the pericranium over the frontal and parietal bones.

The sympathetic is irritated by the way of the cavernous plexus through the Gasserian ganglion to which are connected four other ganglia that form the cephalic portion of the sympathetic: the ophthalmic, the spheno-palatine, the otic, and the submaxillary. All four receive sensitive filaments from the fifth nerve and motor and sympathetic from other sources. These ganglia are also connected with each other and with the cervical portion of the sympathetic. As the cavernous plexus communicates with the third, fourth, and fifth nerves, and a filament forms one of the roots of the ophthalmic ganglion, it can be readily understood how coördination of the extrinsic and intrinsic muscles takes place, and how a disturbance in the muscular balance of the motor muscles can produce headaches and other reflex conditions.

Headaches from eye strain may be local or general, the most common seat of pain is the frontal, temporal, and occipital regions. In some cases a heavy dull pain on the crown of the head is complained of. Frequently headaches are localized either on one side or the other, especially if there is a tendency to neuralgia. With occipital headaches the pain may extend down the cervical region and sometimes as far as the dorsal. I have seen a very severe and annoying pain in the sacral region entirely disappear by the correction of a muscular defect.

In most cases the headaches are not severe in character, the sensations are dull, with a heavy feeling which gradually increases in severity according to the tax upon the eyes. The scalp is often sore and sensitive to touch, so much so that ladies complain of the weight of the hair. The head feels sore as if bruised, and the brain may seem as if pressed against the skull when the head is turned from side to side. The headaches may begin gradually and increase in severity until the patient is compelled to take to the bed. Nausea frequently accompanies severe attacks. Such headaches always follow use of the eyes, either di-

rectly or remotely, sometimes they do not appear until the next day after the eyes have been strained.

Many cannot attend church or entertainments without resultant headaches that are often attributed to the bright lights. Being in crowds, shopping, witnessing processions, etc., where the accommodative power is constantly changing, always causes great distress to those who are afflicted with eye strain.

Car sickness, as well as headaches occurring while traveling, is indicative of eye strain, more especially a muscular defect.

The indicated remedy in many cases of cranial neuralgia will only relieve and not cure until an existing optical defect has been corrected.

As to the relief and cure, ocular defects require a most careful correction. It is absolutely essential that this be done in the most painstaking and precise manner.

Refraction is now an exact science when certain rules are carried out; the most important one of these is the use of a mydriatic, as its action puts the accommodation at rest and enables accurate measurement of all ocular irregularities. For the purpose I cannot too strongly recommend the use of an atropin solution, four grains to the ounce, dropped into the eyes four times a day for three or four days. While under its influence several examinations should be made until the full defect is accurately determined. The use of atropin is necessary not only to cause complete relaxation of the ciliary muscle, that no other mydriatic is capable of doing so thoroughly, but on account of its long duration of effect it gives the oculist more time and a better opportunity for measuring the defect. The hypertrophied ciliary muscle of a hypermetrope quite often does not relax under the influence of a quicker or milder mydriatic, as homatropin and scopolamin, but can be made to do so by the persistent use of atropin.

It is true that a mydriatic causes dilatation of the pupil, intense photophobia, loss of accommodation, and diminution of vision for distant and near objects. This is distressing

and inconvenient to the patient for the time being, yet this is only of short duration compared with the period of suffering that can be relieved by an accurate and certain correction.

Ocular defects are not progressive, except myopia and presbyopia; therefore, if a careful correction is made and a record is kept, all future changes of lenses can be made without a recorrection.

The balancing of the ocular muscles is also of the greatest importance. In mild cases weak prisms are used, combined with the correcting lens.

Benefit has been obtained by gymnastic prism exercise, but high degrees require correction by graduated or complete tenotomies.

When an optical defect exists, correcting glasses should be worn constantly. It is as essential to keep the eyes corrected for distance as well as for near, and it should be borne in mind that only the young and middle-aged suffer from ocular headaches. Old age, by loss of the elasticity of the lens, removes all eye strain except that from the extrinsic muscles.

Spectacles are the most suitable form of glasses, they maintain a more accurate position of the lenses. Nose glasses are unreliable, as their position is constantly changing, therefore the lenses are easily misplaced and good results cannot be obtained from their use.

It is the oculist's duty to watch and care for the patient's glasses, and not trust them in the hands of careless opticians, for when lenses worn for the correction of astigmia become misplaced, there will be a return of the symptoms and dissatisfaction on the part of the patient. Oculists have been credited with doing poor work when the fault was with improperly adjusted glasses.

Rules and instructions as to the wearing of glasses and their care ought to be carefully laid down, and if these precautions are taken, bearing in mind that it is the little things that require our most careful consideration, we may be assured of good results.

810 Marshall Field Building.

SYMPOSIUM.

Shall we attempt a uniform nomenclature for the turbinated bones? Is it better to call them, in brief, "the turbinates," "the turbinals," or the "turbinateds?"

EDWIN PYNCHON (Chicago): After a careful search in ten dictionaries I fail to find in any one of them the use of the word 'turbinates" as a noun, and in no case is that ungrammatical, illogical, and highly outlandish word "turbinateds" so much as mentioned. The words "turbinate" and "turbinated" are simply adjectives, and nothing more, and should always be used jointly with either the word "body," "tissue," or "bone." (See Mackenzie, Lennox Browne, Bosworth, Bishop, Seiler, or Sajous.)

The word *turbinal* is the proper word to use when employed alone or as a noun. This is indorsed by Gould, Dunglison, Thomas, Webster, and the Century Dictionary, though the latter two are a little hazy and approve its use at times also as an adjective.

HERMAN KNAPP: I should call them the *turbinals*, or the turbinated bodies.

"*Turbinals*" is preferred by M. A. BARNDT (Milwaukee), GEO. C. STOUT (Philadelphia), JOHN M. INGERSOLL (Cleveland), who favor a uniform nomenclature, and W. F. BEGGS (Newark, N. J.), GEORGE STRAWBRIDGE (Philadelphia), and E. F. REAMER (Mitchell, S. D.).

"*The Turbinates*" vote STEPHEN H. LUTZ (Brooklyn), LINN EMERSON (Orange, N. J.), EDWARD FRIDENBURGH (New York), A. A. CANNADAY (Roanoke, Va.), and GEO. E. MALSBARY.

IRVING TOWNSEND (New York): There is no question. The term *turbinates* is euphonious, descriptive, and, I believe, correct

English; while "turbinals" is a word coined without any authority, and "turbinateds" is a noun derived from the adjective "turbinated," which seems to be without any good reason for its existence.

H. W. HOYT (Rochester): According to the derivation I can see no ground for "turbinal." I think the noun is *turbinate*, and the adjective "turbinated." There is too little accuracy in our use of medical terms and we ought to strive to bring about a uniform nomenclature in all of them.

W. PEYRE PORCHER (Charleston, S. C.): I prefer to speak of the right and left turbinate bones.

W. F. MITTENDORF (New York): I like the old way.

"*Turbinateds*" is favored by GEO. B. RICE (Boston) and FRED. D. LEWIS (Buffalo).

SOCIETIES.

WILLS' HOSPITAL OPHTHALMIC SOCIETY, Philadelphia, February 18, 1902.

CONRAD BERENS presented a case for differential diagnosis between glaucoma as expressed by the ophthalmoscopic changes and optic atrophy as evidenced by the other data. It at first appeared like one upon which an immediate iridectomy should be performed; the symptoms yielded to treatment for incipient atrophy. The papillary vessels were not plunging, the choroidal and peripheral ones could not be determined. He postponed operation because the anterior chamber was full, the corneal epithelium in good condition and the irides freely responsive. For three months large doses of sulphate of strychnia several times daily caused no physiological symptoms but an improvement in one eye. The fields of vision for color were not disproportionately contracted. Those for red and green fields in the right eye were slightly contracted, especially the former, but they were properly related. There were no central color scotomata. The color fields of the left eye were concentrically contracted, particularly to the temporal side, but there were not any scotomata. There had been slight increase in tension; and no symp-

toms of glaucoma in the anterior segment of the eye. He had found that the optic nerve cupping was not deep—merely a shelving as it were, over which the small retinal vessels could be followed. He believed that the peculiar feature of the case was the fact that the color-fields were not disproportionately contracted as one would expect to find.

S. D. Risley thought the mixed atrophic appearances were dependent upon physiological excavation and an unusually rigid sclera. He suggested the presence of a retrobulbar neuritis as evidenced by the contracted visual fields and the central scotomata. He would avoid operative interference.

William Zentmayer stated that in studying over one hun- cases of glaucoma occurring in the clinics of Doctors Norris and Oliver at the Hospital, he had found that the supposed characteristic cutting off of the nasal portion of the visual fields did not exist in the majority of cases. He had found that there generally is a concentric contraction of the fields and occasionally central scotomata.

Dr. Ziegler mentioned a case with deep physiological cupping and possible slight increase of tension that occurred ten years previously. The irides were responsive. There was not any dilatation of the pupils. The retinal vessels dipped considerably into a cupping in the optic nerve head which was some five diopters deep. One eye was operated on early, retarding the condition. The other was operated on later. The man returned with a violent attack of acute glaucoma.

Frank Fisher had seen Dr. Berens' case the first day that it was brought to the Hospital and believed that it was one of optic neuritis with atrophic symptoms. He still held to the same diagnosis, and could not admit glaucoma.

Charles A. Oliver stated that glaucoma complex occurred in many forms. This case was most probably one he believed of secondary type that made a picture of what may be spoken of as posterior glaucoma. The condition would eventually lead to blindness. Iridectomy in such cases is of no value. In most of these cases there are temporary blockings of the lymph streams posteriorly, accompanied with ephemeral though definite rises in intra-ocular tension. The condition, he said, is sometimes bene-

fited by treatment directed towards various causative dyscrasias such as rheumatism and syphilis. The appearance is totally unlike grosser forms of anterior glaucoma. The inflammatory signs ofttimes consist in associated low-grade retrobulbar neuritis giving rise to the so-called mixed type of the disturbance.

Dr. Berens presented a case of abscess of both frontal sinuses into which T-shaped drainage tubes were to be inserted. The patient's condition at the time of the meeting, however, was so bad, and so much hæmorrhage had taken place, that he had decided to drain but one side, leaving the other for a subsequent time when the patient's condition had improved. He stated that in this case a probe could be passed from one sinus to the other. He mentioned another case in which he had successfully used a system of T-shaped drainage tubes to advantage. During the operative procedures the case almost died on the table. He persisted, however, with a good result. A few days before the meeting he again had an opportunity of seeing the patient and found that the nasal passages were in excellent condition. A special point in the operation, he believed, was the frequency of extreme hæmorrhage which should always be carefully prepared for. The method of drilling through the bone was detailed. Personally he preferably employed a double-edged cutting drill. He called special attention to the method of passing the tube through the drilled opening, and thence into the cavities. For this purpose he used a rubber drainage tube with two strains of No. 12 waxed cord passed through it and threaded on an eye probe. He had found it necessary to use main force for the purpose. He mentioned the great value of peroxide of hydrogen in these cases during the operation, stating that it does two things, namely: stops local hæmorrhage, and when injected through the nostrils into the stomach, it causes any blood in the stomach which may have been swallowed during the operation to clot and be vomited. Dr. Oliver mentioned the great value of the cleansing and hæmostatic properties of peroxide of hydrogen. He had successfully employed it in a case of sarcoma of the orbit that had been recently operated on by him. He had used it in full strength solution and had not found it do any harm.

Dr. Oliver then showed a case that had been successfully operated on by him, and George B. Wood for disease of the orbit, sphenoid sinuses and antrum.

Dr. Berens spoke of a case occurring in the late Dr. Keyser's clinic at the Hospital in which the patient was saved only by untiring efforts for nearly four hours' time before the case responded. Dr. Fisher spoke of his method of dealing with such bone cases. Dr. Zeigler suggested the use of a hand drill with a rachet and pinion. Dr. Berens stated that he had tried a great many forms of instruments, but had finally concluded that the double-edge drill in a bulb handle is the best by reason that the slightest motion is communicated to the hand and thus allows the operator to always know where he is.

Dr. Schwenk presented a case of thrombosis of the central retinal vein. He based this belief upon the sudden onset of impaired vision, the repeated patches of retinal hæmorrhages that could only be found in the course of the retinal veins, the optic nerve head swelling, and the hæmorrhages in the macular region. There was a systolic murmur.

AMERICAN HOMŒOPATHIC OPHTHALMOLOGICAL, OTOLOGICAL, AND LARYNGOLOGICAL SOCIETY. Fifteenth Annual meeting, Cleveland, O., June 16, 17, and 18, 1902. Reported by Drs. Harriet Chapman and W. H. Phillips, of Cleveland.

The Homœopathic Treatment of Glaucoma. J. B. G. Custis, Washington, D. C.

Operative treatment should not be discredited and all authorities agree as to the value of eserin. Women are more liable to glaucoma, especially during the early menopause.

Puls. opens up canals closed by catarrh; there is pain and symptoms change from one eye to other.

If the cause is old age, phos. will assist.

Look after cause and remove it. If rheumatism, try bryonia: shooting pain in eyes and tension, photophobia and dim vision.

For syphilis use kali i., mercurius, or iodine.

If ciliary injection is early and marked, give rhus t.

Sulphur is good in scrofulous cases where there are organic disturbances.

Mer. corr., arg. nit., kali bi., may be called for.

Plumb.—The inflammation passes along the sheaths of the nerves. Plumb. and phos. are two of the best remedies, as shown by the eyes of those poisoned by these substances.

Gels. is much used.

Fluor. acid has cold wind blowing under lids.

Osmium has halo as phosphorus, but that has fatty degeneration.

Bell. in high potency has been found useful.

Spig. has sharp, stabbing pains.

Aur.—The mental symptoms are prominent.

Ferr. in anæmic cases.

Operative and Non-Operative Treatment of Glaucoma. A. B. NORTON, New York.

The writer said glaucoma might be inflammatory or non-inflammatory. Non-inflammatory glaucoma was called glaucoma simplex and was where there was an excess of pressure. It was with the causes of this we had to deal and not an inflammation. The degree of pressure varies. Some cases show no pressure, but the symptoms go on. Again glaucoma simplex may have tension equal +3. A little pressure for a long time shows same changes as high pressure for a short time. Glaucoma simplex may terminate in an attack of acute glaucoma. In glaucoma simplex do not operate until other treatment has been watched months or years if necessary. If it can be controlled by non-operative methods it is better to do so, for operations often make worse. This may be a dangerous principle to teach, but he believes it best. The treatment is to first try to control tension by myotics and massage. To massage, alternate palpation increasing in pressure for five minutes. Sclerotomy may be repeated, and last, an iridectomy may be made. Ten per cent. of all cases will not be benefited by internal remedies, and it is too serious a disease to leave to internal remedies alone.

In acute glaucoma all agree as to operation if not relieved by myotics. The operation should be in ten days if there is no improvement, as, unless tension is relieved, vision is lost early. In an acute inflammatory glaucoma with vision in each eye of $\frac{15}{200}$ and tension +2, a one per cent. solution of eserin was used for three days with no results. An iridectomy was then made with immediate relief.

If the case is not improving a sclerotomy may be made, followed, if necessary, by an iridectomy.

Discussion.

The discussion was led by Emma Boice-Hays of Toledo, O. If there is insufficient removal of the contents of the eye causing the glaucoma, then an operation is indicated. In glaucoma simplex it is better not to name disease too soon. Not so much dependence is placed on an operation as in former years, and the operation is made as a last resort to relieve pain.

Dr. POWERS of London says that no operation will cure in chronic cases, and read detailed history of Javal's case. As soon as glaucomatous symptoms appear the patient should be put on a rigid diet. It was suggested that as plumb., sil., and silicate of potash had been recommended a substance containing all of these, such as Bohemian flint glass, could be used.

DR. SWAN said not to believe altogether that the tendency is away from operation in glaucoma simplex, for it is used more than ever in some clinics. Do not operate too early and do not wait too long.

DR. RUMSEY believes thoroughly in the use of massage and thinks it worthy of trial.

Gary's Ophthalmic Oscillator. C. L. RUMSEY, Baltimore, Md.

The machine was exhibited and action described. He states he has good results in internal diseases of the eyes, such as chronic glaucoma, optic atrophy, retinitis pigmentosa as well as in muscular asthenopia.

B. W. JAMES believes benefit may be derived in adhesions from massage or by the oscillator, but does not believe in much massage in glaucoma because of increased pressure on optic nerve.

DR. WELLS of Sistersville, W. Va., asks if the eye really does move outward as claimed by patient and by the appearance of the lids? Is the suction most beneficial when there is poor circulation, and are suction and compression more beneficial than simple suction and release?

W. R. KING, Washington, D. C., in his paper on *Pneumatic and Oscillatory Massage of Visual and Vocal Organs*, describes the instrument used by him. He has used it for two years in his treatment of eyes and throat. In incipient cataract, corneal

opacities, asthenopia, etc., he has had good results. In a case of muscular insufficiency, where there was headache and an esophoria of 14°–20°, he performed a partial tenotomy with some result. He then used the oscillator over the external rectus with good results. He believes the method can be developed and used in many cases.

Dr. Rumsey in answer said adduction could be increased by this method; that the instrument was run by a motor to insure greater speed and regularity. The eyeball does not move very much during treatment. The massage is especially noticeable in relieving pain.

Dr. King was asked if he had any results in cases of advanced cataract and if he used it in cases of detached retina, and answered that he had noticed no results in advanced cataract. He thought that progressive myopia could be somewhat retarded. He does not think it exerts any influence in lengthening the eyeball in hyperopia. He agrees with Dr. Rumsey as to the comfort derived by the patient from the treatment, especially after prism exercises.

AMERICAN OPHTHALMOLOGICAL SOCIETY. Thirty-eighth Annual Meeting, New London, Conn., July 16 and 17, 1902. Reported by A. W. Palmer. (Abstracts of a few of the principal papers.) (Continued).

In a brief paper on *Extraction of Metallic Fragments from the Vitreous Chamber*, Dr. Risley of Philadelphia said that since a renewed interest had been awakened in the giant magnet by Professor Haab's recent visit to this country, he thought the time opportune to discuss the relative merits of extraction by this powerful instrument and the methods more generally employed in this country, viz., the extraction by aid of the weaker and more portable magnets through an opening in the sclera at the known site of the foreign body; a method which he said had been rendered practicable by the exactitude with which iron and steel particles can be located by the skiagraph. Four illustrative cases were presented in which steel fragments had been removed through the scleral puncture, in all of which the eyes had been preserved with good vision, in one with no impairment. In no case had detachment of the retina followed,

although six, eight, ten, and eleven months had elapsed since the extraction in the respective cases. In discussing the relative merits of the two procedures, Dr. Risley said that it could not be denied that opening the sclera, choroid, and retina in the manner described in the recorded cases was to be deprecated since it gave rise to danger from infection of the globe; then too the protruding bead of vitreous and the ensuing hæmorrhage from the severed choroidal and retinal vessels might interfere with the closure of the retinal wound or cause a retinal detachment. These dangers, however, could be minimized by aseptic precautions and a meridional section. In a large number of cases he had not seen either accident occur. In either of the cases presented for illustration of the method, he thought the giant magnet would have drawn the fragment into the anterior chamber, if skillfully manipulated, whence it could have been finally extracted through a corneal section. This method he said would doubtless be better than to have made a wound in the sclera at random, through which to search blindly, with the tip of a feeble magnet thrust deeply into the vitreous, for a foreign body supposed to be somewhere within the eyeball. The problem was, however, quite a different one when not only the existence, but the size and precise location of the body were known. It then became a question whether the dangers from a scleral puncture were more to be feared than the dragging of the ragged-edged foreign body through a new track in the vitreous, over the ciliary processes, with the danger of entanglement in the iris or of injury to the lens capsule before reaching the anterior chamber; once there the dangers incident to its final delivery through an opening in the cornea, infection of the ball, etc., were to be considered. Then, too, if the foreign body were impure, the probability of infection was greatly enhanced by its new pathway through hitherto uninjured tissues. In closing he thought these inquiries could be satisfactorily and definitely answered only by extended experience.

Melano-sarcoma of the Orbit, by S. B. St. John, Hartford, Conn.

The patient, lady, seventy, first seen February, 1899. History of blow by running against door in dark four years before; soon after injury V. of R. declined. A local M. D. said retina de-

tached. Now V. = o. Glaucomatous look. T. + 1. Pupil moderately dilated. Lens partly opaque. A salmon-colored patch 3 mm. in diameter in upper inner quadrant of sclera. No pain, but some discomfort. With + 2.75 V. of L. = $\frac{20}{40}$. To use weak eserin and report in three months. Next seen April, 1902. Has had much pain at times. Spent six weeks in Glens Falls; no benefit. For a year there has been a black protuberance where the salmon patch was. Eyeball completely immovable and considerably protruded, but lids can close. Cornea eroded. T. + 3. Mass felt at outer side. Enucleation done. Much dissection required at inner side. No hæmorrhage of account. Specimen shows sarcoma growth both inside and outside eyeball, the outer mass being much larger than the eyeball itself. The microscopical examination showed that while the intra-ocular growth was spindle-celled sarcoma, the retro-ocular portion was alveolar sarcoma. Two months after enucleation healing was perfect.

Report of Case of Congenital Orbital Cyst with Microphthalmos.
G. C. HARLAN, Philadelphia.

The patient, a girl of seven years, was a Polish waif. History not ascertainable, except tumor was thought to have existed since birth and at present increasing in size. The left lower lid was pressed forward by a large incompressible, but tensely fluctuating cyst, the blue color of which was evident through the thin and distended skin, and gave, at first sight, the impression of an aneurism. The external dimensions of the tumor were 40 mm. by 25 mm. The lower margin of the orbit was 5 mm. below the level of that of the other eye. The interpalpebral commissure was pushed upward and arched by the pressure of the tumor and opened into a deep conjunctival sac above the cyst. At the bottom of this sac could be felt a rudimentary eyeball, apparently scarcely larger than a pea, which moved in unison with the other eye. The right eye was perfect, and no abnormalities could be be found elsewhere.

The cyst was removed without serious difficulty and found to extend back to the bottom of the orbit, but not connected with the rudimentary eye. It was filled with a clear yellowish fluid. Dr. Flexner, the pathologist of the Pennsylvania Hospital, makes the following report of his examination:

"The outer layers of the section show muscle and adipose tissue. The inner layer of tissue consists of sclerotic fibrous tissue in which blood vessels, of small caliber but thin walls, occur. The innermost layer is somewhat polypoid in appearance, as there are singular elevations projecting into what was doubtless the cavity of the cyst. In these there is much dark brownish-black pigment, sometimes clearly within cells. Lighter yellow pigment also occurs, there being extravasated blood and hæmatoidin. Extending into the sclerotic tissue along rifts in the section are similar pigmented cells and hæmatoidin, and these masses are included in a highly cellular tissue in which the cells are oval and round.

AMERICAN OTOLOGICAL SOCIETY. Thirty-fifth Annual Meeting, New London, Conn., July 15, 1902. Reported by A. W. Palmer. (Continued.)

Officers elected for the following year were: President, B. Alex. Randall, M. D.; Vice President, Wm. H. Carmalt, M. D.; and Secretary and Treasurer, Fred. L. Jack, M. D.

The Cardiac Effect of Operations on the Middle Ear. H. O. REIK, Baltimore.

This cardiac condition, frequently shown by fainting, is usually considered due to the pressure on the m. t. communicated per ossicles and oval window to the semicircular canals. Paracentesis and ossiculectomy cannot be explained in this manner. From minute observation on three experiments upon dogs, the author ascertained the following facts: Pulse rate and blood pressure were shown by charts. Under *partial* ether anæsthesia irritation (rubbing) of m. t. caused marked drop in blood pressure and pulse rate, the latter falling from 120 to 114 per minute. *Partial* ether anæsthesia, ossiculectomy—blood pressure decreased during operation from 126 to 110 mm., and after operation to 85 mm.; and pulse rate fell during operation from 120 to 102, but afterward arose to 144 per minute. Same dog as above under *complete* anæsthesia, irritation of m. t., and operation had no effect on blood pressure or pulse rate. In second dog under similar influence as above, ossiculectomy caused greater decrease in blood pressure than the first; but pulse was accelerated throughout. Third dog. No ether, but cocain anæsthesia—

paracentesis performed—pulse fell from 114 to 108, and continued to fall for thirty seconds after the operation; it was slow, full under cocain. Blood pressure only affected ten seconds after the operation. Conclusions: (1) The heart failure accompanying these operations is due to the irritation of the sensory nerves affecting the vaso-motor apparatus. (2) Irritation of the sensory nerves of the tympanum produces a depressor effect and usually some cardio-inhibitory action; a result quite at variance with the effect of stimulating sensory nerves elsewhere. (3) Complete anæsthesia will prevent this effect. (4) Partial anæsthesia diminishes it. Therefore complete anæsthesia is probably advisable in this class of operation. The use of gas as anæsthetic in these operations should be investigated.

A Case of Sarcoma of the Temporal Bone. CHAS. J. KIPP.

Boy, five years, came to clinic with apparently a simple polypus filling the entire meat. aud. ext., accompanied by fœtid purulent discharge on pressure. Removal simple, but followed by profuse hæmorrhage, but no relief of the severe pain which had existed several weeks. Under ether careful exploration showed hole in floor meat. aud. ext. near m. t., from which flowed fœtid pus and into which probe passed downward and inward. Mastoid swollen and boggy—apparently an o. m. s. with implication of mastoid. Operation. On making the initial incision for radical operation a cavity below and anterior to mastoid was opened, which was filled with large very peculiar greenish-colored granulations—cavity extended nearly to pharynx—the granulations, the posterior, anterior, and lower wall m. a. e., which were exceptionally soft, were curetted out, incus and malleolus removed, antrum and tympanum cleaned. Post-operative condition uneventful, except very rapid and profuse formation of granulations, which resisted all known procedures. This first sign of malignancy—specimen examined showed sarcoma of small round-cell variety. Two months later, at second operation, all granulations and considerable more soft bone removed; but in two weeks they again protruded above surface of excavation. At this time paralysis of facial nerve, optic neuritis, and uncontrollable headache supervened. Advised no further interference. Six and one-half months after first operation child died. No autopsy. Tumor then weighed six pounds and eight ounces, and was twenty-five inches in circumference.

Discussion.

DR. FRIDENBERG: Recited case and advised first removal, then use of Dr. Cooley's toxins.

DR. JOHNSON said he thought Dr. Cooley did not consider toxins curative when tumor originated in the bone.

DR. ABBOTT advocated the X-ray.

DR. JOHNSON considered X-ray beneficial in epithelioma but not sarcoma.

Some Observations on Stacke's Operation. THOS. R. POOLEY.
See page 382.

ABSTRACTS FROM CURRENT LITERATURE.

The Full Correction of Myopia.—Edward Jackson, Denver.—*Ophth. Rec.*, November.

Advocating this, Dr. Jackson reports 123 eyes (some first reported in 1892) which were carefully remeasured after wearing full correction (unless modified by presbyopia) after periods of three to seventeen years—averaging five years and eight months. Of the 123 eyes, 93 had no change in the myopia or less than 0.50 D. variation. In 10 eyes M. increased 0.50 D.; in three it diminished 0.50 D. In 13, M. increased more than 0.50 D., averaging 1.50 D. In 4, M. diminished, average 1 D. M. was stationary in 75.6 per cent., increased in 18.7 per cent., and diminished in 5.7 per cent. In only 6 eyes did visual acuteness diminish at all, and in none more than the loss of one line of letters.

Visual activity improved markedly in 16 eyes, in some it was doubled. A table is given of 18 patients under 20 years old; in nearly all M. was clearly progressive, in 60 per cent. of them it did not increase after beginning to wear correcting glasses, while in 14 eyes M. < more than 0.25 D., and in 4 it diminished more than that amount. The writer knows of no statistics that point to an essentially different conclusion.

Graefe attributed increased pulsation of retinal veins in near vision to the accommodative effort, inferring that this increased

intra-ocular tension and must be bad for myopia. But Jackson has observed the same increased pulsation when making the same observation upon an eye fully under the influence of a cycloplegic. On the other hand, he saw one case of ophthalmoplegia externa in a patient possessing some accommodation, and the strongest effort to accommodate produced no change in the perceptible venous pulse.

The most important cause of myopia appears to be the pressure on the globe of the extra-ocular muscles; this is greatly increased in near vision, and the first indication is to permit the comfortable use of the eyes for distant vision—which is accomplished only by the constant wearing of the full correction. Until opposing experience is brought forward—entirely different from all published experience—we are justified in holding that this point in the treatment of myopia has been settled. Of course exceptions to this rule exist and must be recognized.

J. L. M.

Contributions to the Anatomy of the Myopic Eye.—L. Heine, Marburg.—Abs. tran. by W. A. Holden, *Arch. of Oph.*, November.

He examined an emmetropic and a 15 D. myopic eye from one individual, and two eyes from another patient each myopic 10 D., all of which he had examined ophthalmoscopically before death. A fifth eye, with high myopia, enucleated for secondary glaucoma, appeared to have a spontaneously cured detachment of the retina.

The emmetropic and 15 D. myopic eye were very similar as regards the structure of the ciliary muscles and of the anterior segment in general; each ciliary muscle seemed rather poorly developed. The retina of the highly myopic eye exhibited pathological changes at the macula.

In the bilateral myope the tendinous insertion of the muscle at Schlemm's canal is elongated by traction, so that the muscle proper begins further back than in the normal eye. The root of the iris is also elongated backward, causing a deepening of the anterior chamber. Finally, the belly of the ciliary muscle is elongated backward in the manner first described by Iwanoff: the circular fibers have disappeared, the radial fibers seem hypertrophied. The ciliary muscle of myopic eyes may have the

form generally supposed to be found only in the hyperopic. The choroid was not involved in these cases of myopia.

The black and white spots in sclero-choroiditis posterior in myopia have recently been attributed to inflammation in the choroid, but these preparations show that the changes about the macula are not due to inflammatory processes in the choroid, but principally depend upon alterations in the pigment epithelium of the retina.

It cannot be said that the development of myopic detachment is to be explained in the same manner as the development of macular affections in high myopia; the origin of the latter is not yet well understood, and only the healing processes could be well followed. J. L. M.

Syphilis of the Optic Nerve and Retina.—Thomas M. Stewart of Cincinnati.—*Hom. Eye, Ear, and Throat Jour.*, December.

During the year the author followed the changes in retina and optic nerve of two cases of syphilitic retinitis and two of primary optic neuritis. In the retinal cases the vessel walls bore the brunt of the attack. Some arteries showed patches suggestive of a serpent's skin, and some a fine gray line in the track of the vessel beyond which the artery regained its color and size. "It is reasonable to suppose that similar changes also occur in vessels too small to be seen with an ophthalmoscope, leading ultimately to atrophy of the optic nerve and retina." "The mottled vessels seem to be the earlier stage, and the gray line of almost obliterated vessel the second stage of the syphilitic changes." In one of the cases of primary optic neuritis, infection fifteen months previously, V. = 1/100, field concentrically contracted, retinal vessels not involved—low diet, baths, and constitutional treatment restored the field and visual acuteness. Concentric contraction of the field occurs in primary optic neuritis; in neuritis descendens there is central scotoma. There is no good reason why there should not be a true primary optic neuritis; the optic nerve is subject to primary disease just as other nerves are. J. L. M.

Index of Ophthalmic Literature.

The *Ophthalmic Review*, at the close of the present year, will publish an index for its last fourteen volumes, from 1889 to 1902,

inclusive. The index will embrace both its original articles and its reviews of current literature. This will make it a useful index of the ophthalmic literature of the period. A copy of it can be obtained by anyone, by sending two shillings sixpence to J. & A. Churchill, London, before December 31, 1902.—*Oph. Rec.*, October.

Ætiology of Glaucoma.—Professor Dr. W. Schoen, of Leipzig.—*Ophthalmic Record*, October.

He has examined microscopically fifteen eyes which he had previously examined in the living subject, discovering degeneration of the ciliary muscle with anatomical changes in the ora serrata, beside beginning excavation (*Arch. f. Ophth.*, xxiij. 1–195) and concludes that degeneration of the ciliary muscle is the missing link explaining glaucoma simplex; consequently, he believes, it is absolutely impossible to cure a fully developed case by any method yet invented. But he is convinced that every eye can be guarded against glaucoma if seen early enough by an oculist who is accustomed to observe the preliminary symptoms.

"Increase of tension must be relegated to the rank and file of glaucoma symptoms." Eighty per cent. of glaucomatous eyes were hyperopic or astigmic, thirteen per cent. had insufficiency of the interni, and the remainder were presbyopic. In many cases the progress of glaucoma has been checked by correcting these errors.

Microscopical research has shown that the anatomic changes have been made worse by iridectomy in glaucoma without increased tension. (Schoen, "Functions Krankheiten des Auges." Bd. 1, s. 254 u. B. II. s. 194, Wiesbaden, Bergman, 1893–1901).

It has been shown by microscopical examination that forty eyes which had been examined during life and found to have the so-called physiological excavation had really acquired it during the lifetime (*Arch. f. Ophth.*, xxxj. 4, 1, 1884). This was confirmed by statistical research and by the fact that new-born children, with a few exceptions, do not have excavation (*Arch. f. Ophth.*, xxxiij. 1, 195.). J. L. M.

Aspergillar Keratitis.—E. C. Ellett, Memphis.—*Ophth. Rec.*, November.

A colored man, aged twenty-two, had for a year in the right cornea a deeply infiltrated comet-shaped area. In the middle of

the head, near the center of the cornea, was a small dark spot, evidently a foreign body. The tail, extending curved to the limbus, was slightly vascular. The dark spot with some of the surrounding corneal tissue was picked out under holocain and an antiseptic wash given; the eye was free from pain and redness in a few days. Under the microscope the mass removed from the cornea proved to be aspergillus niger. J. L. M.

The First Cataract Produced in Man by Naphthalin.—A. Lavenius in *Klin. Monatsb. f. Augenh.*—Abstracted in *Ophth. Rec.*, November.

In 1900, a robust pharmacist, aged thirty-six, with normal eyesight, was given, for symptoms of enteritis, 5 gm. naphthalin in 200 gm. castor oil in thirteen hours, at one-hour intervals. He awoke the next morning with pain in the bladder and found that he could hardly see. By the ninth hour he could only count fingers at four feet on account of perinuclear cloudiness of both lenses—the first phase of zonular cataract—which was unchanged when the article was published. J. L. M.

Senile Entropium Apparatus.—Dr. Asher.—*Wochenschr. f. Therap. u. Hygiene des Auges*, June 12.

Following Oppenheimer, but simpler, a bent rod attached to each arm of the spectacles ends in a rounded extremity which pressed on the skin so as to prevent recurrence of the entropium, while the spectacles are worn, after the trouble has been corrected by drawing the skin down with the finger. J. L. M.

Electrotherapy in Ocular Diseases.—Dr. Silex, Berlin.—*Arch. of Ophth.*, November. Abstracted from vol. xxxvii of the German edition.

Dr. Silex is skeptical of its value in large angiomata of the orbit, and failed, in repeated experiments on the normal eye, to enlarge the visual field or stimulate the light sense with the constant current.

Electricity favorably influences (a) pure neuralgia (not symptomatic), anode on the tender point and cathode on the neck. (b) Fibrillary twitching of the lids which has resisted other treatment. (c) Relapsing non-specific scleritis and episcleritis. A possible improvement has been attained in opacities of the

vitreous, none in choroiditis, retinitis, and neuritis. The treatment of paralyzed muscles and of opacities of the cornea is not encouraging. A reliable galvanometer and rheostat are indispensable. J. L. M.

Tertiary Syphilis of the Larynx.—Geo. B. Rice, Boston.—*Hom. Eye, Ear, and Throat Jour.*, December.

An interesting case that gave no evidence of specific infection, except relief by iodides and the characteristic post-operative odor. It was impossible to state whether the laryngeal paralysis or inflammation was secondary to the other. Despite 10 grains of pot. iod. every three hours and other treatment, tracheotomy was necessary, which was followed three days later by emphysema of the neck and a slight odor of the tracheal wound. On the next day the odor increased with a profuse muco-purulent discharge from the trachea and an unhealthy appearance of the wound. January 1st (fifth day after the operation.) Pt. >, emphysema less, odor <. Pot. iod. grs. x, h. iv. January 2, odor >, discharge >, and from this time on the patient rapidly improved. January 6, laryngitis gone, considerable abduction of vocal bands, no odor. Pot. iod. grs. xx, 4 t. d. January 9, left hospital; 23d, went to his office. June, he seems perfectly well; is taking strontium iodide, grs. xv, 4 t. d. and merc. biniod. gr. $\frac{1}{50}$, 3 t. d. After removal of the tube (January 7) the larynx was still inflamed and the vocal bands abducted. Improvement was manifest the second day of treatment, and after four weeks there was no dyspnœa. I try to keep syphilitic patients under treatment for three years, every few weeks stopping the medicine for a few days' use of some intercurrent remedy. Syphilitic surgical wounds slough, fail to unite, and have a foul characteristic odor.

H. W. Hoyt (in discussion): If the system is flooded by drinking water abundantly we get a much better effect and less unpleasant symptoms from iodide of potash. When there is laryngeal œdema, as sometimes happens under the action of the iodide, the medicine must immediately be stopped for a while. This is less apt to occur if the patient is drinking much water. J. L. M.

BIBLIOGRAPHY.

Any of the journals below referred to may be obtained at the library of the New York Academy of Medicine, 17 W. 43d Street; prices furnished upon application.

The reader who notes any omissions or errors will confer a favor by sending corrections to Dr. W. U. Reynolds, 320 Manhattan Ave., New York.

5 Am. J. of M. Sc. (Phila.).
6 Am. J. of Ophthalm. (St. Louis).
7 Am. J. of Physiol. (Boston).
9 Am. Medicine (Phila).
12 Anat. Anz. Centralb. (Jena).
15 Ann. de la Policlin. de Paris.
21 Ann. des Mal. de l'O., du Lar., du Nez et du Phar. (Paris).
22 Ann. d'Oculistique (Paris).
23 Ann. d'Ophtalmol. (Paris).
25 Ann. di Med. Nav. (Roma).
26 Ann. di Ottalmologia (Pavia).
28 Ann. of Ophthalmol. (St. Louis).
29 Ann. of Ot., R. and L. (St. Louis).
33 Arb. aus Anat. Inst. (Wiesbaden).
34 Arb. a. d. Chir. Klin. d. Königl. Univ. (Berlin).
36 Arch. of Ophthalm. (N. Y.).
37 Arch. of Otol. (N. Y.).
38 Arch. d'Ophtalmol. (Paris).
39 Arch. de M. et de Chir. Sp. (Paris)
40 Arch. de M. Experim. et d'Anat. Pathol. (Paris).
42 Arch. Internat. de Lar., de l'Ot., et de Rhinol. (Paris).
46 Arch. f. Anat. u. Phys. (Leipzig).
47 Arch. f. Augenh. (Wiesbaden).
48 Arch. f. Ohrenh. (Leipzig).
49 Arch. f. Lar. u. Rhin. (Berlin).
50 v. Graefe's Arch. f. Oph. (Leipzig)
52 Arch. f. Mic. Anat. u. Ent. (Bonn).
53 Arch. f. d. Gesam. Phys. des Mensch. u. d. Thiere. (Bonn).
54 Arch. f. Pathol. Anat. u. Phys.
56 Arch. Ital. di O., R. e L. (Torino).
57 Arch. Ital. di Lar. (Napoli).
58 Arch. di Ottalmol. (Palermo).
65 Atti delle Accad. delle Sc. M. e Nat. (Ferrara).
75 Beitrage z. Augenh. (Hamburg).
80 Brain.
82 British Med. Journ.
85 Buffalo M. Jour.
86 Bull. de Lar., Ot., et Rh. (Paris).
88 Bull. of Johns Hopkins Hosp. (Balt.).
98 Centralbl. f. Pr. Augenh. (Leipzig).
105 Clinical Journal (London).
120 Edinburgh Med. Journal.
125 Gaceta Medica (Mexico).
126 Gac. Med. Catalana (Barcelona).
128 Gaz. des Hôp. (Paris).
131 Giorn. Internaz. delle Sc. M. (Napoli).
132 Giorn. delle Assoc. Napol. di Med. e Nat.
133 Giorn. delle R. Accad. di M. id Torino.
139 Guy's Hosp. Gaz. (London).
141 Hahnemannian Mo. (Phila.).
144 Hom. E., E., and T. Jour. (N.Y.)
155 Indian Lancet.
156 Indian Med. Gaz. (Calcutta).
157 Indian Med Rec.
172 J. de Phys. et de Pathol. Gen. (Paris).
173 J. of Advanced Therap. (N. Y.).
175 J. of Am. Med. Assn. (Chicago).
176 J. of Anat. and Phys. (London).
178 J. of Brit. Hom. Soc. (London).
182 J. of E., E., and T. Dis. (Balt.).
183 J. of L., R., and O. (London).
184 J. of Ment. and Nerv. Dis. (N.Y.)
185 J. of O., O., and L. (N. Y.).
193 Klin. Monatsbl. für Augenh. (Stuttgart).
195 Klin. Vortr. und Geb. d. Otol. u. Phar. Rhin. (Jena).
200 La Clin. Ophtal. (Paris).
210 La Parole (Paris).
215 Laryngoscope (St. Louis).
220 Le Progrès Méd.
225 London Lancet.
229 Lo Sperimentale (Fierenze).
235 Med. and Surg. Jour. (Boston).
240 Medical News (N. Y.).
242 Med. Press and Circ. (London).
245 Medical Record (N. Y.).
250 Medical Times (London).
260 Mind (London).
265 Monatsch. f. Ohrenh. (Berlin).
275 N. Y. Eye and Ear Infirm. Rep.
280 N. Y. Med. Jour.
283 N. Y. State Jour. of Med. (N. Y.)
285 No. Am. Jour. of Hom. (N. Y.)
290 Nouv. Icon. de la Salpet. (Paris).
299 Ophthalmic Record (Chicago).
300 Ophthalmic Review (London).
310 Phila. Med. Jour.
313 Post-Graduate, The (N. Y.).
315 Proc. of the Phila. Pathol. Soc.
317 Proc. of the Roy. Soc. (London).
330 Receuil d'Ophtalm. (Paris).
333 Revista Espec. Med. (Madrid).
355 Schmidt's Jahrb. d. in- u. ausland ges. Med.
356 Sei-I-Kwan Med. Jour. (Tokio).
400 Univ. of Pa. Med. Bul. (Phila.).
450 Zeitschr. f. Augenh. (Berlin).
455 Zeitschr. f. Ohrenh. (Wiesbaden).
460 Zeitschr. f. Physiol. u. Phys. d. Sinnesorg. (Leipzig).

OPHTHALMOLOGY.

Amaurosis and its treatment by the subcutaneous injection of strychnia. Derby, 235, May 15.
Eye complications of measles and their treatment. Wiesner, 245, May 17.
Functional and paralytic strabismus. Roosa, 245, May 3.
Resection of the cervical sympathetic in glaucoma. Marple, 245, May 10.
Infection of the lids and the globe with staphylococcus pyogenes albus. Marple, 275, Jan.
Cataract operations. Hough, Idem.
Ganglionic neuroma of the retina. Weeks, 275, Jan.
Hereditary congenital cataract and general remarks on needling and discission in soft and secondary cataracts. Hunter, Idem.
Syphilitic ulcer of the eyelid. Pusey, 299, Mar.
A new ophthalmoscope and plane mirror combined. Pusey, Idem.
Clinical and pathological report of a case of foreign body retained in an eye for twenty-six years. Chance, 299, Mar.
Curious case of ocular infection with dust from nest of mud wasp. Case of transplantation for inverted and shortened eyelids. Taylor, Idem.
I. Simultaneous paretic mydriasis, subluxation of lens and rupture of choroid, with involvement of retina. II. Peculiar persistent pupillary membrane. Duane, 299, Mar.
Treatment of congenital lens displacement. Brose, 299, March.
An additional case of conical cornea in which the vision was improved by convex cylinders. Westcott and Pusey, Idem.
Muscle tucking, Colburn, 299, Apl.
Congenital aphakia with microphthalmos. Cherryholmes, 299, Apl.
Toxic amblyopias; a review. De Schweinitz, 299, Apl.
Operative interference in corneal complications of gonorrhœal ophthalmia. Parker, 299, Apl.
Sub-periosteal blood cyst of the orbit. Denig, Idem.
Large intraocular hæmorrhage after cataract operation and after rupture of ulcerated cornea. Zimmerman, 299, April.
Congenital word blindness. Hinshelwood, 300, April.
Obstruction in central artery of retina. Thompson, 300, April.
The value of the fluorescin test. Benson, 300, May.
The supra-orbital reflex. McCarthy, 310, Mch. 29.
Herpes zoster ophthalmicus. Durand, Idem.
Trachoma in immigrants. Davis, 313, May.
The lesions in a series of eyes which produced various types of so-called sympathetic disturbance in the fellow eye. De Schweinitz and Shumway, 315, April.

An Additional Case of Amblyopia with Central Color Scotoma and General Defective Color Perception Following the Ingestion of Jamaica Ginger. Burnett, 299, June.
The Crossed Cylinder and its Uses. Stevenson, Idem.
A New Method of Treatment for Chronic Intra-ocular Diseases. Muncaster, Idem.
Value of Trikresol as an Antiseptic. Jackson, 300, June.
Chemical Dynamics and Statics under the Action of Light. Wilderman, 317, May 31.
Development of the Layers of the Retina in the Chick after Formation of the Optic Cup. 317, May 31.
Properties of the Arterial and Venous Walls. MacWilliam, 317, June 19.
Continuity of Effect of Light and Electric Radiation on Matter. Bose, 317, June 19.
Orbital Abscess Associated with Antral and Ethmoidal Disease. Oliver-Wood, 5, July.
Refraction, Its Difficulties and How to Overcome them. Minor, 6, July.
Transient Astigmia. Griffin, 6, July.
Note upon the Effect of Calcium and of Free Oxygen upon Rhythmic Contraction. Maxwell Hill, 7, Aug.
Tuberculosis of the Iris. Friedenwald, 9, July 5.
Six Cases of Epilepsy Due to Ametropic Eye-Strain. Gould, Idem.
A New Inhaler Especially Intended for Operations on the Eye or Face. Le Fever, 9, July 12.
A Note on the Ophthalmoscopic Appearance of the Normal Fovea. Hansell, 9, Aug. 9.
Operation of Advancement of the Rectus Muscle, by Claud Worth, 28, July.
A Subconjunctival Dermoid Cyst. Ball, Idem.
Adenoma of the Lachrymal Caruncle. Veasey, Idem.
A Clinical and Histological Study of a case of Melano-Sarcoma of the Choroid. Krauss, Idem.
Pathogenesis of Glaucoma. Troncoso. Trans. Hale, 28, July.
An Operation for the Advancement of the Straight Muscles of the Eye, with two Modifications. Wootton, 28, July.
Choroidal Sarcoma Diagnosed in the First Stage and Removed by Enucleation. No Recurrence. Würdemann, Idem.
A Remarkable Vascular Growth into the Vitreous. Jennings, 28, July.
Amyloid Degeneration of the Conjunctiva. Alleman, Idem.
Modification of the Abney Pellet Test for the Ready Detection of Central Scotomata. Oliver, Idem.
Subconjunctival Injections of Iodipin. (Abstract), Idem.
Complete Absence of the Visual System in an Adult. (Review), 299, June.

Iritis: Its Treatment. Strabismus: Mules' Operation. Fox, 135, July 14.
Gonorrheal Synovitis in an Infant with Oph. Neonatorum. Smith, 157, July 30.
Treatment of Immature Cataracts. Bissell, 144, July.
Subjective Instruments vs. Cycloplegics. Beebe, 144, Aug.
Eye Reflexes. James, Idem.
Indications and Contraindications for the Use of the Mydriatic. Baldwin, Idem.
Some Observations in the Treatment of Corneal Ulceration in Gonorrhœal Oph. Campbell, 144, Aug.
The General Condition of the Patient vs. The Special Disease. Stewart, Idem.
Jacques Daviel and the Beginnings of the Modern Operation of Extraction of Cataract. Address—Hubbell, 175, July 26.
Treatment of Serpiginous Ulcer of the Cornea. Kipp, 175, Aug. 9.
Nature and Treatment of Pterygium. McReynolds, Idem.
Thiosinamin. (Corneal Opacities, etc.) Suker, Idem.
Present State of Our Knowledge Concerning So-called Partial or Graduated Tenotomies and the Heterophorias. Colburn, 175, Aug. 16.
An Operation for Establishing a Cul-de-sac for the Wearing of an Artificial Eye. Weeks, 175, Aug. 23.
Relative Indications for Enucleation and the Mules Operation. Hepburn, 175, Aug. 23.
Contribution to the Study of the Myospasms. Walton, 184, July.
Unusual Choreiform Alterations in the Width of the Palpebral Fissure. Occasioned by Spasm of the Levators. Posey, Idem.
Adjuvants to the Drug Treatment of Diseases of the Eye. Deady, 185, July.
Local Drug Treatment of Eye Diseases. Schenck, Idem.
Internal Remedies for Diseases of the Eye. Warner, Idem.
Syphilitic Iritis.—Belated Cases. Campbell, Idem.
Cause of Inequality of Pupils in Cases of Thoracic Aneurism. Wall, 225, July 12.
Treatment of Convergent Squint in Hospital Practice. James, 225, Aug. 2.
The Modern Treatment of Pterygium. Loring, 240, Ang. 2.
The Misuse of Glasses. Hotz, 240, Aug. 16.
Contagious Ophthalmia in Schools, Asylums, and Hospitals. Derby, 245, July 5.
Normal fundus as seen with the Ophthalmoscope. Campbell, 242, July 9.
Iridectomy for "Occlusio Pupillæ sine Seclusione Pupillæ." Magennis, 242, July 23.
Hydrocephalus in Adult, simulating Cerebral Tumor. Warrington, 242, July 30. 250, Aug. 9.

Penetrating Injuries of the Eye. Ray, 245, July 26.
Epithelioma of Lid Margin Apparently Cured by Solution of Adrenalin Chloride. Marple, 245, Aug. 23.
Asthenopia. Campbell, 242, Aug. 13
Anisometropia. Campbell, 250, Aug. 2.
Annular Scleritis. Parsons, 300, July.
Minor Injuries of the Eye. Fridenberg, 280, July 5.
The Eye as a Factor in Causing General Symptoms. Minor, Idem.
Some Cases of Sympathetic Ophthalmia. McDowell, 280, Aug. 9.
A Changeable "Stop" Disk for Subjective Refraction Tests under Mydriasis. Eaton, 299, July.
Monocular Vision. Hobby, Idem.
A Puzzling Case of Infection of the Conjunctiva. Morrow, Idem.
Tuberculosis of the Conjunctiva. Bordley, Jr., 299, July.
Two Cases of Hysterical Monocular Diplopia. Zimmerman, Idem.
The Roentgen Ray in Ophthalmic Practice. Campbell, Idem.
Combined Bar-reader and Squint Stereoscope. Maddox, 300, Aug.
Carcinoma of the Eyelids; Removal; Recurrence. Posey, Shumway, 310, July 5.
Cataract. Van Fleet, 313, Aug.
Traumatic Rupture of Choroid, with Hemorrhage from Upper Branch of Inferior Temporal Vein. Chas. A. Oliver, 5, Sept.
A Preliminary Study of the Ocular Changes produced by the Injection of Pure Cultures of the Bacillus Typhosus into the Vitreous Chambers of Rabbits and Guinea-pigs. Chas. A. Oliver, 5, Oct.
Experimental and Clinical Observations of Increased Intercranial Tension. The Mütter Lecture for 1901. Harvey Cushing, 5, Sept.
Ocular Affections Secondary to Syphilis. Brunson, 6, Aug.
Epicritic Remarks upon Methods for Estimating the Economic Damage from Accidental Injuries to the Eyes. Wuerdemann, 6, Aug.
Removal of Foreign Bodies from the Eye. Am. Med. Assn., 6, Aug.
Section and Exsection of the Rectus Muscles for Cosmetic Effect in Cases of Squint Inoperable by Tenotomy and Advancement. Prince, 6, Sept.
Formalin in Ophthalmology. Leidy, 9, Sept. 13.
The Extraction of Metallic Fragments from the Vitreous Chamber. Risley, 9, Sept. 13.
Eyestrain and Epilepsy. Gould, 9, Sept. 13.
The Discovery of Astigmia and Eye-strain. Gould, 9, Oct. 18.
Primary Sarcoma of the Iris. Wood and Pusey, 36, July.

Case of Traumatic Enophthalmos. H. W. Kilburn, Idem.
Two Noteworthy Cases of Extraction of Iron from the Vitreous by Means of the Giant Magnet. A New Procedure. Kipp, Idem.
Blennorrhœa of Lachrymal Sac Caused by Rhinolith. Kipp, 36, July.
A Case of Streptothrix in the Lower Canaliculus. Kipp, Idem.
Case of Metastatic Carcinoma of One Optic Nerve, with peculiar degenerations of Both Nerves. Holden, 36, Sept.
The Purely Anatomical Proof of the Existence of Uncrossed Optic Nerve Fibers in Man. St. Bernheimer, Idem.
A Case of Abnormal Tortuousness of the Retinal Vessels. Levin, 36, Sept.
On the Histology of the Scars Following Posterior Sclerotomy. Meller, Idem.
The Rôle of Scleral Scars in Operations for Glaucoma. Andogsky and Selensky, Idem.
Acuteness of Vision and Astigmia. Steiger, 36, Sept.
Endarteritis obliterans arteriæ centralis retinæ diffusa. Markow, Idem.
Treatment of Corneal Infiltrations by Iodine-vasogen. Duane, Idem.
Albuminuric Retinitis in Syphilis. Zimmermann, 36, Sept.
An Address on Some Affections of the Conjunctiva. A. Quarry Silcock, 105, Sept. 10.
Exophthalmic Goiter. Gifford, 141, Aug.
On illustrations of Optic Neuritis at present in the ward. 139, Sept. 13.
Retinitis Albuminurica. Barbee, 144, Sept.
Prevention of Myopia. Suffa, 144, Sept.
Exophoria, with treatment. Duffield, Idem.
Intra-ocular Tumors Involving Choroid and Retina. Hall, 144, Sept.
The Stereoscope in Heterophoria and Incipient Strabismus. Wells, 144, Oct.
Fifty Cataract Extractions. Helfrich, Idem.
Dilatation of the Pupil in Chlorodyne Poisoning. Powell, 156, Aug.
Glioma of the Retina. Nanavathy, 157, Aug. 6.
Removal of Foreign Bodies from the Eye. Haab, 175, Aug. 30.
Foreign Bodies in the Eye. Sweet, Idem.
Removal of Bits of Steel from the Interior of the Eye by the Haab Magnet, without Incision in the Sclera. Standish, 175, Aug. 30.
Should the General Practitioner have a Working Knowledge of the Ophthalmoscope and Trial Lenses? Albert Rufus Baker, 175, Sept. 6.

Teaching Ophthalmology to Undergraduates. Frank C. Todd, 175, Sept. 6.
Our Visual Apparatus as a Dual Organ. A Plea to Modify the Customary Rotation of the Ocular Meridians. Knapp, 175, Sept. 13.
Vicarious Menstruation from the Lower Lids. Claiborne, 175, Sept. 13.
Concerning the Symptomatology and Etiology of Certain Types of Uveitis. de Schweinitz, 175, Sept. 20.
Analysis of Thirty-seven Cases of Uveitis. Woods, 175, Sept. 20.
Cystic Tumor of Orbit: Successful Removal. Chatterji, 157, Sept. 24.
The Diagnostic Importance of Keratitis Punctata Interna (Descemetitis). Friedenwald, 175, Sept. 27.
Injuries of the Eye Productive of Diseases of the Uveal Tract. Hansell, 175, Sept. 27.
Pathology of Uveitis. Wilder, 175, Oct. 4.
Treatment of Certain Non-septic Lesions of the Uveal Tract with Pilocarpin and Sweat Baths. Woodruff, 175, Oct. 4.
Treatment of Uveitis. Marple, 175, Oct. 4.
Two Cases of Retinal Detachment Treated with Subconjunctival Injections of Salt Solution, 175, Oct. 11.
The Disappearance of Opacities of the Crystalline Lens. Pyle, 175, Oct. 18.
Physiology of the Ocular Muscles. Ellett, 175, Oct. 18.
The Association of Graves' Disease with Glycosuria and Diabetes Mellitus. Stern, 175, Oct. 18.
Subconjunctival Injections in Diseases of the Eye. Gibbons, 182, July, Aug.
Principles Controlling Operative Interference in Heterophoria. Gardiner, 175, Oct. 25.
Principles Controlling the Non-Operative Interference in Heterophoria. Ayres, 175, Oct. 25.
Buphthalmos, or Congenital Hydrophthalmos. Wherry, 225, Sept. 27.
Contagious Conjunctivitis. Standish, 235, Oct. 2.
Recent Progress in Ophthalmology. Standish, 235, Oct. 9 and 16.
Advances in Ophthalmic Therapeutics. St. John Roosa, 240, Sept. 27.
Two Unusual Complications Following Cataract Extraction. Pooley, 245, Sept. 13.
The Post-Operative History of Fifty Cases of Simple Chronic Glaucoma. Charles Stedman Bull, 245, Oct. 4.
The Prominent Eye: Its Meaning and Clinical Associations. Haig, 245, Oct. 11.
Trachoma in the Public Schools. 283, Sept.
Eyestrain and Epilepsy. 283, Oct.
The Prognosis of Myopia. Valk, 299, Aug.

A Case of Hydrophthalmos. Murray, 299, Aug.
A Self-illuminating Ophthalmoscope. Suker, 299, Aug.
The Examination of the Eyes and Ears of Children in the Public Schools. Editorial, 299, Aug.
On the Confusion in Methods of Numbering and Using Prisms. Howe, 299, Sept.
Corneal Tattooing. Borsch, 299, Sept.
Notes from Abroad. Clarke, 299, Sept.
Several Cases of Unusual Eye Diseases. Claiborne, 299, Sept.
Subconjunctival Inflammations. Gradle, 299, Sept.
Cases of Lenticular Opacity—Cataract Cured or Relieved by Treatment. Würdemann, 299, Sept.
Zonular Cataract. Story, 300, Sept.
Functional or Hysterical Amblyopia. Gunn, 300, Oct.
Sudden Temporary Loss of Vision. Barrett, 300, Oct.
Severe Burn of Eye and Face by Nitrite of Amyl with Loss of the Eye. Shumway, 310, Oct. 11.
Voluntary Nystagmus (?) J. Whitefield Smith, 185, Sept.
Should fear of Sympathetic Ophthalmia outweigh saving an eye wounded in the ciliary region ?—Symposium, 185, Sept.
Scopolamin hydrobromate reduces increased intra-ocular tension. Editorial, 185, Nov.
Supermedication. Delap, 185, Nov.
Klinische Beobachtungen. I. Ein Fall von Variocellen der Bindehaut. Hilbert. II. Ein Fall von radicaler Ausheilung des Kerato-conus auf Operativem Wege (Keratectomie). Noiczewski, 98, Februar.
Zwei Fälle von Keratitis bullosa nach vorausgegangener Erosio corneæ. Weigandt, 98, März.
Ein Fall von traumatischem Enophthalmos. Bistis, 98, März.
Beitrag zur Behandlung der Hypopyon-Keratitis. Zirm, 98, März.
Ueber die Anwendung von Cuprum citricum bei Trachom. v. Arlt, 98, März.
Klinische Beobachtungen. I. Umschriebener Schwund der Regenbogenhaut bei Specifischer Pupillen-Erweiterung. Hirschberg. II. Diphtherische Gangrän des Thränen-Sackes. Caspar, 98, März.
Aus der Augenärtzlichen Privatpraxis. Neese, 98, April.
Operation eines Orbitalsarcoms mit Erhaltung des Auges. Israel, 98, April.
Zur Bedeutung des einseitigen Nystagmus für die Lehre von den Augenbewegungen. Simon, 98, April.
Ein einfaches Phantom zur Uebung im Augenspiegeln. Salzer, 98, April.
Polyarthritis gonorrhoica nach Blennorrhœa Neonatorum. Altland, 193, April.
Giebt es eine endogene toxische Wundentzündung am Auge ? Schimamura, 193, April.

Lymphangioma Cavernosum der Bindehaut und der Lider. Meyerhof, 193, April.
Metastatische Ophthalmie bei Hydrophthalmus Congenitus. Römer (Würzburg), 193, April.
Die Form des glaukomatösen Auges. Schoute (Amsterdam), 450, April.
Beitrag zur subconjunctivalen Discission des einfachen Nachstars (Kuhnt). Wokenius (Königsberg), 450, April.
Ueber die Jequiritoltherapie. Hummelsheim (Bonn), 450, April.
Ein Fall von geheilter Panophthalmitis nach Cataract-Extraction durch Einführung von Jodoform in das Augeninnere (Glaskörper). Schmidt (Elberfeld), 450, April.
Ueber Endarteritis Obliterans nodosa der Netzhautgefässe und ihr Verhältnis zur Sog. Embolie der Centralarterie. Raehlmann (München), 450, Mai.
Zur Frage der Ringscotome. Gallus (Bonn), 450, Mai.
Eine neue Methode der Ophthalmoskopischen-Refractionsbestimmung. Lohnstein (Berlin), 450, Mai.
Ueber einem Fall einer mit dem Pupillarreflexeinhergehenden Mitbewegung des Auges. Levinsohn u. Arndt (Berlin), 450, Mai.
Experimentelle Studien über die Schalleitung im Schädel. Frey (Wien), 460, Bd. 28, Heft 1.
Der linearperspectivische Factor in der Erscheinung des Himmelsgewölbes. Stratton, 460, Bd. 28. Heft 1.
Anatomische Untersuchen eines Sympathisirenden Auges nebst Bemerkungen über das Zustandekommen der Chorioretinitis Sympathica. Osaki, 47, xlv. 2 H.
Zur Theorie der Refractionsbestimmungen. Thorner, 47, xlv. 2 H.
Die Verschiebung der Schleimhaut der Uebergangsfalte auf den Tarsus beim Trachom. Straub, 98, Mai.
Augenmuskel-Lämung nach schwerem Blutverlust. Neuberger, 98, Juni.
Ueber einen bemerkenswerthen Fall von Accommodationskrampf bei einem hysterischen Knaben. Loeser, 98, Juni.
Zur dacryocystitis "congenita." Hirsch, 47, xlv. 4 H.
Angiosarcom der choroidea. Vierjährige beobachtung. Pischel, Idem.
Ueber frühjahrskatarrh. Falta, Idem.
Ueber den sehnenschnitt und die muskelvorlagerung. Fröhlich, Idem.
Zur indicationsfrage der Sympathicusresection gegen Glaucom. Hoor, 47, xlv. 4 H.
Zwei fälle von Exophthalmus. 1. Sarcoma orbitalis. 2. Hämorrhagie retrobulbaris. Hirsch, Idem.
Ueber aplanatische Brechung und Spiegelung in Oberflächen zweiter Ordnung und die Hornhautrefraction. Matthiessen, 53, Aug.

Aus meiner fünfzehnjährigen augenärztlichen Thätigkeit. Dre-Abhandlungen. 1. Über die Prinzipien meiner augenärzti lichen Therapie. 2. Über die Prognose der intracraniellen Augunmuskellähmungen. 3. Über perforierende Scleralwunden, ihre Behandlung und Prognose. Gelpke, 75, H. 52, Juli.

Eine Schussverletzung des Auges mit günstigem Ausgange vermittelst der Röntgen-Photographie. Pollnow, 98, Juli.

Ueber Magnetoperationen. Mayweg, 193, Juli.

Beiträge zur angeborenen Starbildung. Ueber Perlenbildung in Schichtstaren. Stock, Idem.

Nachtrag zu unserer Mitteilung über angeborene cyclische Oculomotorius Erkrankung. Axenfeld u. Schürenberg, 193, Juli.

Ueber einen Fall von angeborenen grünlicher Verfärbung der Cornea. Kayser, Idem.

Ein eigenartiger Fall von Motilitätsstorungen am Auge. Zur Nedden, Idem.

Ueber den diagnostischen Wert grosser Elektromagnete. Gelpke, 193, Juli.

Zur Bakteriologie der Conjunctivitis crouposa. Roscher, Idem.

Erworbene Achromatopsie mit voller Sehschärfe. Pergens, Idem

Ein Fall von volliger Heilung der Verrostung des Augapfels Cramer, 193, Juli.

Augenbefund bei Erythema exudativum multiforme Hebræ. Steffens, Idem.

Ein Fall von einseitigem Ergrauen der Wimpern bei einem Kinde. Rindfleisch, Idem.

Histologische Artefacte im Sehnerven. Elsechnig, 193, Aug. u. Sept.

Einseitiger Nystagmus. Heimann, Idem.

Ein Fall von Adenom der Krause'schen Drüsen. Rumschewitsch, Idem.

Zwei Fälle von Hypertrophie der Plica semilunaris. Rumschewitsch, Idem.

Ueber ein Angiom der Aderhaut mit Ausgedehnter Verknöcherung bei Teleangiektasie des Gesichtes. Steffens, 193. Aug.-Sept.

Ueber die Beziehungen der elastischen Elemente der Chorioidea zum Sehnerveneintritt. Sagaguchi, 193, Aug.-Sept.

Ein Casuistischer Beitrag zur Ætiologie der Konkremente in den Thränenröhrchen. Segelken, Idem.

Subconjunctivaler Weg einer Schrotkugel. Bergemann, 193, Aug.-Sept.

Ueber die ophthalmoscopische Diagnose sclerotischer Erkrankungen der Netzhautgefässe. Raehlmann, 450, June.

Lenticonus posterior beim Menschen. Pergens, Idem.

Bacteriologische Untersuchung über die Panophthalmie. Hirota, Idem.

Die operative Behandlung des mit Drehung des Auges um seine Axe complicierten Schillens. Koster-Gzn, 450, Juli.

Beitrag zur Lehre von den metastatischen Orbitalabscessen. Loeser, Idem.
Zur Sichtbarkeit der Ciliarfortsätze und Zonulafasern im Pupillargebeit nebst Bemerkungen üb. Schichtstarähnliche Trübungen der Linse nach Verletzungen. Weiss, Idem.
Melanom der Iris. Anargyros, 47, B. xlvi., H. 1.
Einige Bemerkungen über das doppelseitige Colobom der Chorioidea in der Maculagegend nebst mittheilung eines neuen Falles. Hoeve, Idem.
Der hinrinden Reflex der Pupille. Haab, 47, xlvi. B. 1° H.
Die Augen in der Breslau medicin Studirenden. Cohn, Idem.
Die normalen Pupillenweiten nach Bestimmungen in der Poliklinik. Tange, Idem.
Ueber Wucherung des Bindehautepithels mit cystischer Entartung und ihre Beziehung zum nævus. Stoewer, 50, H. 3.
Vollständige mikroskopische Untersuchung eines Falles von sympathischer Ophthalmie. Asayama, Idem.
Klinische und pathologisch-anatomische Untersuchungen über die Intoxicationsamblyopie. Schieck, Idem.
Ueber Pupillarreflexcentrum und Pupillarreflexbogen. Ruge, 50, H. 3.
Experimentelle und kritische Untersuchungen zur Frage nach dem Einfluss des Nervus Sympathicus auf den Accommodations Vorgang. Romer u. Dufour, Idem.
Ueber Cataracta Pyramidalis mit Hornhautadhärenz nebst Bemerkungen über das Dickenwachsthum der Membrana Descemeti. De Vries, 50, H. 3.
Die Ergebnisse meiner Fluoresceinmethode zum Nachweis von Erkrankungen des Hornhautendothels. v. Hippel, Idem.
Bulbus Septatus. Salffner, 50, H. 3.
Beiträge zur Lehre von den Aderhautsarkomen. Bruns, Idem.
Weiterer Beitrag zur kenntniss der Binocularen Tiefenwahrnehmung. Elchnig, 50, B. liv, H. 3.
Der Einfluss der Accommodation auf die Wahrnehmung von Tiefenunterschieden. Albada, Idem.
Ueber Sehstörungen nach Blutverlust. Singer, 75, Sept.
Ueber den hering'schen Fallversuch bei Strabismus. Simon, 98, Aug.
Obere Halbtaubheit der Pupille. Hirschberg, Idem.
Hintere hornhautbeschläge: ihre klinische Bedeutung. Friedenwald, 98, Sept.
Zur Casuistik der Metastatischen Ophthalmie. Purtscher, 98, Sept.
Ueber eine eigenthümliche Art von Keratitis Punctata Superficialis. Toshima Kuwabara, 98, Sept.
Ueber intrabulbäre Tuberkulose bei Kindern und Bemerkungen über die Differentialdiagnose zwischen Tuberkulose und Netzhauttumoren. Emanuel, 193, Oktober.

Zur Behandlung der Iristuberkulose mit Tuberculin. Handmann, Idem.
Zwei Fälle von ringförmiger Trübung der Cornea. Blascheck, Idem.
Hinüberwachsen der freien Oberlidbindehaut auf den Tarsus. Hoppe, 193, Oktober.
Ectropium non cicatriciale. Der heutige Stand seiner Operativen Behandlung. Pflüger, 193, Oktober.
Ueber subconjunctivale Injektionen von Natr. cinnamyl. (Hetol). Lezenius, 193, Oktober.
Gefäss-studien an der hornhaut und iris. Augstein, 450, Sept.
Ueber einen Fall von Sympathicuslähmung bei Herpes Zoster. Stein, Idem.
Bemerkungen über sogenannte Knötchenförnige u. gittruge Hornhautdegeneration. Koerber, Idem.
Die pathologische Anatomie der Conjunctivitis Granulosa nach neuen Untersuchungen. Junius, 450, B. viii. Ergänz.
Die operative Beseitigung der durchssichtigen Linse wegen hochgradiger Myopie. Bjerke, Idem.
Beiträge zur Anatomie und Pathogenese des Kryptophthalmus Congenitus. Golowin, Idem.
Discussion sur les complications orbito-oculaires des sinusites. Soc. fran. d'oph. 5–8 Mai. 200, 25 Mai.
Les amblyopies d'origine hépatique. Jacqueau, 200, 10 Juin.
Résection de la caroncule lacrymale pour le traitement du larmoiement. Augiéras, 200, 10 Juin.
Le pronostic de certaines maladies générales d'après quelques-unes de leurs manifestations oculaires. De Micas, 200, 10 Juin.
Paralysie de l'accommodation d'origine ourlienne. Bagneris, 200, 10 Juin.
Atrophie des nerfs optiques suite de polypes de cavités nasales. Parisotti. Soc. fran. d'oph. 200, 10 Juin.
Pathogénie et traitement du glaucome. Zimmermann, 200, 25 Juin.
Névrite rétrobulbaire dans un cas d'anchylostomiasie. Mitsiasu Inouye, 200, 25 Juin.
La dionine comme antiseptique. Wingenroth, 200, 25 Juin.
Conjonctivite diphtéritique avec broncho-pneumonia. Desvaux, Soc. fran. d'oph. 200, 25 Juin.
Myopie à développement rapide d'origine probablement syphilitique. Sulzer, Soc. fran. d'oph. 200, 25 Juin.
Traitement des néoplasmes du larynx chez les enfants. Mackenzie, 200, Mai.
Idem. Downie, 210, Mai.
Sur l'extirpation du sac lacrymal. Valude, 22, Juillet.
Des troubles pupillaires chez les maladies atteints de dilatation aortique. Chaillous, Idem.

Procédé pour l'incision cutanée du sac lacrymal. Terson, Idem.
Recherches bactériologiques sur l'étiologie de la conjonctivite granuleuse. Morax, 22, Juillet.
Le caractère differentiel des granulations et des inflammations de la conjonctive. De Wecker, Idem.
Le diagnostic de la conjonctivite granuleuse. Morax, Idem.
Des conjoctivites aiguë contagieuse et sub-aiguë au Paraguay. Elmassian, 22, Juillet.
Ruptures sclérales traumatiques. Panas, 38, Juillet.
Étude anatomique de la cataracte secondaire consécutive à l'extraction sans réaction inflammatoire de la cataracte sénile chez l'homme. Hocquard, 38, Juillet.
Des gommes du corps ciliaire, particulièrement de celles précoces. Panas, 38, Août.
Syphilis cérébrale, simulant une paralysie générale, épilepsie Jacksonnienne, dysarthrie, paralysies oculaires, valeur séméiologique importante des troubles oculaires. Brissaud, Péchin, Idem.
Mode de cicatrisation de la capsule du cristallin après les plaies de cette membrane. Terrien, 38, Juillet.
Écarteur-pince des paupières. Pedrazzoli, Idem.
Un cas d'association d'hèmianopsie et de paralysie alterne superieure. Raymond, 128, 31 Juillet.
Raideur de la convergence. Königshöfer, 200, 10 Juillet.
Essais thérapeutiques sur quelques nouveaux produits (Nargol, cuprol. jéquiritol et chlorhydrate d'adrénaline). Darier, 200, 10 Juillet.
L'iridectomie préalable dans l'operation de la cataracte sénile. Aubineau, 200, 10 Juillet.
La sensation lumineuse en fonction du temps. Broca-Sulzer, 172, 15 Juillet.
L'huile hyperiodée en thérapeutique oculaire (iodipine, lipiodol). Bellencoutre, 200, 25 Juillet.
Quelques mots d'ophtalmologie rétrospective. Jocos, 200, 25 Juillet.
De l'adrénalin, principe actif des capsules surrénales. Kirchner, 200, 10 Aout.
L'extraction de la cataracte compliquée de dacryocystite. Terson, 200, 10 Aout.
Dilatation extraordinaire du sac lacrymal de l'œil gauche. Rutten, 200, 10 Aout.
Un cas d'exophtalmie unilatérale et passagère de l'œil gauche. Rutten, 200, 10 Aout.
Les collyres huileux. Terson, 200, 25 Aout.
Conjonctivite diphteritique avec broncho-pneumonie. Desvaux, 200, 25 Aout.
Quelques observations sur l'emploi du jéquiritol en thérapeutique oculaire. Marlakow, 200, 25 Aout.

Extraction de la cataracte combinée à l'iritomie. Manolescu, Idem.
Du ptosis d'origine traumatique: signification et valeur pronostique. Terrien, 220, 19 Juillet.
L'huile hyperiodée en thérapeutique oculaire: iodipin, lipidol. Bellencontre, 220, 16 Aout.
Blessures de l'œil par grains de plomb. Valois, 330, Juillet et Août.
Sur le danger de la conservation des moignons oculaires ophtalmies sympathiques. Galezowski, Idem.
Les complications oculo-orbitaires des sinusites. De Lapersonne, 21, Sept.
La guérison du décollement de la rétine par les injections sous-conjonctivales et intra-capsulaires de sel. De Wecker, 22, Août.
Nouvelles observations de scotome annulaire dans la dégénerescence pigmentaire de la rétine. Gonin, 22, Août.
Sur la tumeur prélacrymale. Cirincione, 22, Août.
Sur un cas de paralysie post-diphtérique de l'accommodation et de la convergence. Ginestous, 22, Août.
La vision stéréoscopique. Nicolaï, 22, Sept.
De la correction totale de la myopie. Chevallereau, 22, Sept.
Influence de la correction totale de la myopie, sur sa progression. 22, Sept.
Manifestations palpébrales et conjonctivales survenant au cours d'affections intra-craniennes. Petit, 22, Sept.
Sur un cas d'ophthalmie purulente congénitale. Armaignac, 22, Oct.
Abaissement de la cataracte: methode et observations. Bourgeois, 22, Oct.
A propos d'un cas d'ophtalmomalacie essentielle. Lor, 22, Oct.
Paralysie traumatique des deux obliques superieurs. Demicheri, 22, Oct.
Traitement du scotome scintillant. Capauner, 22, Oct.
A propos de l'extirpation du sac lacrymal. Salva, 22, Oct.
Intervention opératoire dans les cataractes secondaires. Panas, 38, Sept.
Hydropthtalmie et troubles cardio-vasculaires. De Lapersonne, Idem.
Catarrhe printanier. Demicheri, 38, Oct.
Embolie et thrombose des vaisseaux centraux de la rétine. Panas, 38, Oct.
Ambliopie et amaurose par décharge électrique. Panas, 38, Oct.
Autoplasties oculaires à pont transborde. Badal, 38, Oct.
L'hémorrhagie dans le cours de l'iritis. Fage, 200, 10 et 25 Sept.
Glaucome par suite de l'iritis aiguë. Strzeminski, 330, Sept.

Sarcome du globe et de l'orbite gauche; opération; guérison. 200, 10 et 25 Sept.
Les injections sous-conjonctivales de solution saline physiologique suivant la formule de Pohel. Morgano, Idem.
Dacryoadénite aiguë consécutive à l'ingestion de l'iodure de potassium à faible dose. Prioux, 200, 10 Oct.
Symblépharon congenital avec coloboma de la paupière. Dujardin, 200, 10 Oct.
Un cas rare de l'affection hysterique des yeux chez un homme. Strzeminski, 330, Août.
Des ophtalmies électriques. Galezowski, Idem.
Opération de la cataracte morgagnienne. Bourgeois, Idem.
Abaissement de la cataracte. Bourgeois, 330, Sept.
Paralysie faciale et paralysie des mouvements associés de latéralité des globes oculaires du même côté. Examen électrique. Péchin et Allard, Idem.
Mesure de l'acuité visuelle par des figures de confusion. Bouchart, 330, Sept.
Arthrite consécutive à l'ophtalmie purulente des nouveau-nés. 128, 18 Sept.
Embolia dell'arteria centrale della retina. Petella, Idem.
Tubercolosi primitiva della congiuntiva bulbare. Contributo clinico. Puccioni, 26, Fasc. 6°–7°.
Linfosarcoma della palpebra. Contributo clinico ed anatomico di tumori palpebrali. Scalinci, Idem.
Sulla struttura del vitreo embrionale e de' neonati sulla matrice del vitreo e sull' origine della zonula. Addario (continuazione del lavoro apparso nel Fasc. 3°, 4°, 5°, 1902), 26, Fasc. 6°, 7°.
Contributo allo studio clinico e batteriologico di alcune forme di congiuntiviti. Cannas, Idem.
Il tracoma. Studio critico e distribuzione geografica in Italia. Valenti, 26, Fasc. 8°, 9°.
Il metodo Guaita nella cura delle dacriocistiti croniche. Bardelli, Idem.
Fibro-sarcoma cistico dell'orbita di genesi fetale con diffusione all' occhio. Polignani, 131, 31 Agosto.
Blefaroplastica in un caso di ectropio cicatriziale. Petella, 25, Sett.
El terigion como punto diagnóstico die alcoholismo. Chacón, 125, Julio 1°.

OTOLOGY.

Bullet wound of the motor region of brain. Successful extraction. Drew, 157, Mch. 19.
Varieties of nerve deafness. Grant, 242, Apl. 2.
Hearing of school children. Editorial, 250, Apl. 19.
Fracture of base of skull followed by meningitis, hemiplegia,

coma, and catalepsy lasting eighteen months. Brush, 184, May.
Thrombosis of cavernous sinus—four cases, one operation. Dwight, 235, May 1.
Unilateral progressive facial atrophy. Courtney, 235, May 1.
Diseases of the ear of interest to insurance examiners. Hammond, 235, May 15.
Respiratory tinnitus. Kerrison, 245, Apl. 19.
Somnolence caused by an ear lesion. Harland, 310, Mch. 29.
Auricular perichondritis following mastoid operation. Kerrison, 275, Jan.
A case of extradural abscess, operation, recovery. Walter, Idem.
The use of the ice-coil in the abortive treatment of acute inflammation of the mastoid process. Dench, 275, Jan.
Principles and technic of post-operative mastoid surgery. Pyle, Idem.
Mastoiditis with unusual symptoms. Kenefick, Idem.
Anthropological question on the ear lobes. Baelz, 356, Feb. 28.
Four Cases of Mastoid Abscess. Lake, 82, July 19.
Temporo-sphenoidal Abscess following Middle-ear Disease. Operation Recovery. Woods, 183, July.
Perforation of Membrana Tympani, Stroke of Lightning. MacNaughton-Jones, Idem.
Report of a Case of Cerebral Tumor. Stephenson, 240, July 19.
Ear Complications of Measles and Their Treatment. Jarecky, 245, July 19.
The Venous System of the Temporal Bone and Its Relation to Mastoid Complications. Oppenheimer, 245, Aug. 23.
Middle-Ear Suppuration. Yearsley, 250, July 12 and 19.
The Ear in Relation to General Medicine. Yearsley, 250, Aug. 9.
Ear Complications in Influenza. Yearsley, 250, Aug. 16.
Otitis Media Purulenta by Dry Method. Davis, 280, July 12.
A Case of Epithelioma of Auricle and Auditory Canal. Pooley, 280, July 26.
The Early Diagnosis and Treatment of Acute Mastoid Inflammation. Halsted, 310, Aug. 2.
The Nerve Element in Diseases of the Ear, Nose, and Throat. Harland, 310, Aug. 23.
Present Status of the Knowledge of Otogenous Pyemia. Jansen, 29, Aug.
Nature of Discharges and Douches. Wingrave, 29, Aug.
Three Cases of Simultaneous Operation for Double Mastoid Abscess. Richardson, 29, Aug.
Diseases of the Accessory Sinuses. Miles, 29, Aug.
The Ethmoidal Cells. Van Sant, 29, Aug.
Epithelioma of Middle Ear. Haskin, 29, Aug.
Prognosis in Chronic Catarrh of the Throat and Ear. Harris, 29, Aug.

The Surgeon's Duty to Chronic Otorrheal Patients. Church, 29, Aug.
Hydrobromic Ether. Its Use as an Anæsthetic in Adenoids and Tonsil Operations. Wishart, 29, Aug.
Protection and Preservation of the Labyrinthine Walls in Radical Tympano-Mastoid Exenteration. Payne, 29, Aug.
Rapid Necrosis of the Temporal Bone following Scarlet Fever. Packard, 29, Aug.
A Case of Epithelioma of the Auricle and Auditory Canal. Pooley, 29, Aug.
Supposed Cavernous Sinus Thrombosis. Day, 29, Aug.
Tumor of the Cerebellum. Day, 29, Aug.
Foreign Body in External Auditory Canal Simulating a Sequestrum. Roberts, 29, Aug.
Study of Papuan Hearing. Myers, 37, Aug.
Value of Electrolysis in the Eustachian Tube. Pierce, Idem.
Statistical Report on the Result of Examination of a Second Series of Deaf-Mutes. Bezold, 37, Aug.
Diseases of the Ear in Hysterical Subjects. Voss, Idem.
The Gasserian Ganglion in Middle Ear Suppuration. Hilgermann, Idem.
On Caries of the Tympanic Ossicles. Fagge, 139, Sept. 13.
Use of Adrenalin Chloride in Ophthalmic, Nasal, and Aural Surgery. Green, 157, Aug 17.
Theory of Cross Education as Applied to the Auditory Apparatus. Somers, 5, Oct.
Excision of Gasserian Ganglion, with Reports of Ten Cases by the Krause Method. Murphy and Neff, 175, Oct. 11.
Chronic Suppurative Otitis Media. When should Radical Surgery be Employed in Its Treatment and of What should this Consist? Richards, 215, Sept.
Use of Hot Air in Eustachian Catheterization. Oaks, 215, Sept.
Occlusion of the Lateral Sinus and Internal Jugular Vein an Essential Part of the Method Employed by Nature for Arrest of Infection Having Its Origin within the Temporal Bone. Ballance, 225, Sept. 20.
Chronic Progressive Deafness. Collier, 242, Aug. 27.
What Means Other than Operation have we for Preventing and Combating Inflammation of the Mastoid Cells? Theobald, 280, Sept. 13.
Mastoid Disease in Infants, Two Cases. In Adults, Two Cases. Porcher, 280, Oct. 4.
Disturbances of Equilibrium. Bissell, 141, April.
Indications for Opening the Mastoid. Speakman, 141, April.
The Curability of Deafness. Copeland, 141, June.
Labyrinthine Symptoms. Dowling, 144, June.
Ear Complications during Grippe. Hooker, 144, June.
Chr. Cat. Ot. "Pilgrim, What Cheer." Moriarty, 144, June.

Some Interesting Mastoid Cases. Comstock, 144, June.
Unusual Case of Deafness. Bristow, 157, June 4.
Operation for Prominence of the Auricle. Pooley, 157, June 11.
Varieties of Nerve-Deafness. Grant, 183, April.
Report of Examination of Ears of 1000 School-Children. Cheatle, 183, June.
Report of Examination of Ears of 400 School-Children. Murray, 183, June.
The Acoustic Tract. Starr, 184, June.
Ear Complications of La Grippe. Dowling, 185, May.
Relations of the Facial Nerve to the Tympanum, Especially in Tympanic Exenteration. Randall, 215, June.
Thiosinamin in Ear Diseases. Beck, 215, June.
A New Substitute for Silver-Nitrate. Barnes, 245, May 24.
External Speech-Physiology, or so-called Lip-Reading. Gorton, 245, June 7.
Chronic Discharges from the Ear, and Their Treatment. Yearsley, 250, June 28.
A New Treatment for Deafness from Chronic Catarrh of the Middle Ear. Bates, 280, May 3.
Cerebral Localization and Brain Function. Mettler, 280, June 7.
Notes on Ten Years' Work of the University Ear Department. Randall, 400, May.
Suppurations in the Labyrinth. Hinsberg. Trans., Jordan (Serial), 37, June.
Primary Acute Purulent Inflam. of Mastoid Cells, Involving neither Mid. Ear. nor Mas. Antrum. Dunn, Idem.
Tuberculous Otitis Media. Contribution. Grimmer, Idem.
Earache and Deafness in Children. Copeland, 185, Sept.
Development of the Organ of Hearing. Holmes, 185, Sept.
Stacke's Operation. Some Observations On. Pooley, 185, Nov.
Mastoiditis, Non-operative Treatment of. Converse, 185, Nov.
Die Behandlung der acuten Mittelohrentzündung. Bezold, 455, Juli.
Drei Fälle von Encephalitis im Auschluss an Otitis Media. Voss, Idem.
Die Massagewirking auf d. Schallleitungs apparat v. Prof. Ostmann. Hegener, Idem.
Drei Fälle von Atresia Auris Congenita c. Microtia. 265, Juli.
Die Lage des Reflexcentrums für den Musculus Tensor Tympani. Hammerschlag, 48, B. 56., H. 3 u. 4.
Weitere Fälle endocranièller Complicationen acuter und chronischer Mittelohreiterüngen. Streit, Idem.
Erwiderung auf Körner's kritische Bemerkungen zu meiner Arbeit über die Otitische Pyämie. Lentent, Idem.
Bericht über die neueren Leistunger in der Ohrenheilkunde. Blau, 355, 15 Sept., H. 9.
Traitement scientifique de la surdité. Marage, 42, Juillet-Août.

Thrombo-phlébite suppurée du sinus caverneux d'origine otique sans thrombo-phlebite du sinus lateral. Lombard, 21, Sept.

Étude expérimentale sur la réimplantation de la rondelle cranienne après la trèpanation chez le chien et le lapin. Cornîl et Coudray, 40, Sept.

Trepanation pour troubles consécutifs à une fracture ancienne du crâne. Broca, 128, 21 Oct.

Les abcès otitiques du cervelet, d'apres Bourgeois. 128, 18 Sept.

Circa una nuova forma di paracusia incrociata in soggetti normali. Tonietti, 56, 3° Fasc.

Le otiti medie purulente nell'ozena. Ferreri, 56, 3° Fasc.

Alcuni strumenti nuovi nel campo della otorinoiatria. Citelli, Idem.

Noti di anatomia patologica dell'orecchio. Nuvoli, Idem.

Sulla presenza di una vasta cellula mastoidea postero-superiore suppurata in un ammaloto affetto da mastoidite di Bezold e sulla sua importanza clinica. Citelli, 56, vol. xiii. 2° Fas.

Considerevole emorragia consecutiva ad una miringotomia. Compared, 56, vol. xiii. 2° Fas.

Un nuovo caso di labirintite bilaterale da orecchioni. Garlini, Idem.

Intorno ad un caso di rinoscleroma. Artom, Idem.

Studio critico di alcune recenti esperienze destinate a svelare la sordítà bilaterale. Tonietti, 56, vol. xiii. 2° Fas.

Accidente operatorio en la extirpación de un pólipo del oído. Forns, 333, 20 Agosto.

LARYNOLOGY AND RHINOLOGY.

Essentials in Treatment of Laryngeal Tuberculosis. Levy, 29, May.

External Nasal Neoplasm. Lester, 29, May.

Thyrotomy for Laryngeal Papilloma. Parker, 29, May.

Rheumatism of the Nose. Freudenthal, 29, May.

Temporo-Sphenoidal Abscess. McKernon, 29, May.

Leucoplakia Buccalis. Stein, 29, May.

Treatment of Keratosis of the Fauces. Richardson, 29, May.

Tumors of the Upper Jaw. Battle, 120, vol. xi. p. 547.

Two Cases of Malignant Stricture of the Upper End of the Œsophagus in Women. 120, vol. xi. p. 113.

Treatment of Chronic Suppuration in the Frontal Sinus. Lack, 120, vol. xi. p. 537.

The Submucous Areolar Tissue of the Larynx and its Significance in the Spread of Œdema. Turner, 120, vol. xi. p. 417.

Angina Ludovici Following Dental Caries. Death. Black, 139, Apl. 26.

Diaphragmatic and Vagus Paralysis after Diphtheria. Death (?). 139, May 10.
Lympho-Sarcoma of Naso-Pharynx and Left Tonsil, Angio-Sarcoma of the Naso-Pharynx. Rice, 144, June.
Case of Tumor of the Superior Maxilla. Forshaw, 155, May 12.
Enchondroma of Sub-Maxillary Gland. Robertson, 156, March.
Value of the Diagnostic Signs of Suppuration in the Maxillary Antrum. Nolan, 157, Apl. 16.
Tumor of Superior Maxilla. Forshaw, 157, May 28.
Correction of Deflections of the Nasal Septum with a Minimum of Traumatism. Editorial, 157, May 28.
Graves' Thyroid Disease. Osborne, 157, May 28.
Treatment of Laryngeal Tuberculosis. Price-Brown, 183, June.
Lymphoid Hypertrophy. Townsend, 185, May.
Unusual Case of Hyperplasia of the Nasal Mucous Membrane. Todd, 215, Apr.
Secondary Hæmorrhage on the Fifth Day after Tonsillotomy. Weber, Idem.
The Nose and Throat in the History of Medicine. Wright, Idem, Apr., May, June.
Deformities of the Bones of the Face and Nose. Talbot, 215, May, June.
Supernumerary Uvula. Mullen, Idem, May.
Ichthargan, Its Use in Nose and Throat Diseases. Douglas, Idem, May.
The Rhinologist an Important Factor in the Prevention of Tuberculosis. Pottenger, 215, June.
Hydrophobia Treated with Leaves of Acacia Arabica (Babul). Recovery. Gupta, 156, May.
The Bacterial Pathology, Symptomatology, Diagnosis, Treatment, and Quarantine of Tonsilar Inflammations. Bissell, 240, May 31.
Surgical Treatment of Exophthalmic Goiter. Editorial, 240, June 14.
Subcutaneous Injection of Paraffin in the Correction of Nasal Deformities. Smith, 280, May 17.
Tracheal Injection in Treatment of Bronchial and Lung Diseases. Rockwell, 280, May 24.
Temporary Surgical Occlusion of Carotid Arteries. Editorial, 280, May 24.
Pathology of the Röntgen Ray Tissue Changes, Especially in Malignant Growths. Beck, 280, May 24.
Treatment of Ozæna by Electric Light. 280, June 21.
Naso-Pharyngeal Adenoids. Linnell, 285, Apl.
Hypertrophy of the Lymphoid Tissue at the Base of Tongue. Jarecky, 5, July.
Clinical Lecture on Goiter. Da Costa, 5, July.
Absence of Left Inferior Thyroid Artery. Shimonek, 9, Aug. 2.

Congenital Absence of the Entire Œsophagus, with Report of a Case. Marsh, 5, Aug.
Chemic Pathology of the Saliva and Pharyngeal Secretions (Sialo-Semeiology), as a Means of Diagnosis. Kyle, 9, July 12.
Adenoma of the Nose, with Incipient Sarcomatous Metamorphosis. Mayer, 9, Aug. 2.
Squamous Epithelioma of the Larynx. Miller, 82, July 19.
The Influence of Nasal Obstruction upon the Development of Teeth and Palate. Wingrave, 82, Aug. 16.
Some Functional Neuroses of the Throat. McBride, 120, Aug.
The Surgical Treatment of Tuberculous Cervical Adenitis. Mitchell, 88, July.
Functional Abeyance of Nasal Respiration Simulating True Nasal Obstruction. Pegler, 183, July.
Antral and Ethmoidal Disease. Orbital Abscess Associated with, Oliver-Wood, 5, July.
Congenital Stridor in Infants. Three Cases. Wright, 144, Aug.
The Separate Functions of Different Parts of the Rima Glottidis. Aikin, 176, April.
Unusual Form of Nasal Bone in the Human Skull. Duckworth, Idem.
Diseases of the Accessory Sinuses. Myles, 215, July.
Diseases of the Ethmoidal Cells. Van Sant, Idem.
The Sphenoidal Sinus. Coakley, Idem.
Empyema of Antrum. Cobb, Idem.
Diagnosis and Treatment of Diseases of Frontal Sinus. Coffin, Idem.
Technique of Frontal Sinus Operations. Curtis, Idem.
Bacteriological Diagnosis of Membranous Inflammation of the Throat by a Simple Method. Bayne, 182, May-June.
Proof of value of antitoxin in treatment of diphtheria. Editorial, 175, Apl. 19.
A new aseptic throat mirror. Haight, 175, May 3.
Dangers that may follow operations on the naso-pharynx. Cleland, 157, Feb. 19.
Tonsilitis followed by subacute rheumatism. Ghose, 157, Mch. 5.
Notes on the alternate rhythmical erectility of the nasal mucous membrane. Hem Chandra Sen, 157, Apl. 9.
Nasal catarrhal, fibroid, and mucous polypus. Ely, 157, Apl. 9.
The normal nose and its functions. Mather, 182, Mch., Apl.
Auricular perichondritis. Rogers, 182, Mch., Apl.
Tumor of thyroid. Shattuck, 235, Apl. 17.
Cicatricial occlusion of trachea. Clark, 235, May 8.
Two cases of lupus vulgaris successfully treated with urea pura and the X-Rays. Swales, 225, Mch. 8.
Topical application of mucin in certain affections of the nose, throat, and ear. Stuart-Low, 225, Apl. 5.

Peculiar pigmentation of the oral surface of lower lip. Rolleston, 242, Apl. 30.
A tumor of the superior maxilla. Forshaw, 250, Apl. 12.
Contribution to the study of peritonsillar abscess. Barstow, 245, Apl. 19.
Laryngeal abscess followed by papilloma, etc. Gage, 275, Jan.
Steel-screw extracted from the superior maxillary sinus after wound of the face. Sasaki, 356, March 31.
Naso-pharyngeal adenoids. Linnell, 285, Apl.
Thrombosis of left internal jugular, subclavian, axillary, basilic and median basilic veins, of unexplained origin. Aldrich, 310, Apl. 5.
Drug treatment of catarrh. Douglass, 313, March.
Saccular aneurism arising from ascending and transverse parts of the arch of the aorta. Hane and Rosenberger, 315, Mch.
Streptococcus mucosus (Howard) and its relation to micrococcus lanceolatus. Longcope, 315, Mch.
Preliminary report on microbacilli in the sebaceous glands of the nose, with demonstration of the alleged germ of seborrhœa and baldness. Schamberg, 315, April.
On a foreign body retained in pharynx for twenty-six months. Yoshikawa, 356, Jan. 31.
On the development of the diphtheritic membrane. Suzuki, 356, Feb. 28.
Oral Hygiene. Eames, 175, Aug. 30.
Uremic Aphasia. Riesman, 175, Oct. 11.
Malignant Disease of Œsophagus. Editorial, 183, Aug.
Enormous Naso-Pharyngeal Soft Fibroma. Holmes, Idem.
Importance of Examination of Larynx in Cases of Aneurism of Aorta. Sendziak, Idem.
Surgical Treatment of Commonest Form of Nasal Obstruction. Melzi, Idem.
Some Clinical Features Regarding Hay Fever and Its Treatment. Hope, The Laryngoscope, St. Louis, Aug.
An Operation for Correction of Deflections of the Nasal Septum. Gleason, Idem.
Simple Method of Correcting Certain Deformities of the Nasal Septum. Netterolf, Idem.
Some Modifications of the Author's Original V-shaped Operation for Correction of Deflection of the Septum. Kyle, Idem.
Rare Cases of Sarcoma of Thyroid. Daniel, 225, July 19.
Puerperal Aphasia. Sinclair, 225, July 26.
Three Cases of Motor Aphasia. Injury. Newman, Idem.
Chronic Sphenoidal Suppuration. McKeown, 225, Aug. 20.
Case of Saddle-Nose Treated by Subcutaneous Injection of Paraffin. Martineau, 225, Aug. 9.
Malignant Stricture of Œsophagus. Symonds, Idem.
Nasal Vertigo Simulating Epilepsy. Woakes, 225, Aug. 16.

Palatal Paralysis. Erben, 242, July 16.
Rubber Splints in the Treatment of Septal Curvature. Brown, The Laryngoscope, St. Louis, Aug.
Paraffin Injections for Nasal and Other Facial Deformities, with Exhibition of a New Instrument. Quinean, Idem.
Local Application of Heroin Hydrochloride. Rosenberg, Idem.
On the Classification of the Benign Thyroid Tumors. Pratt, 235, July 3.
A Self-Retaining Tongue Depressor. Mosher, 235, Aug. 7.
Pathology of Empyema of the Antrum of Highmore. Hoople, 240, Aug. 16.
Subglottic Sarcoma Removed Endolaryngeally, with Galvano-Cautery Snare. Gleitsmann, 245, July 5.
Some Hints to the General Practitioner on the Treatment of Chronic Naso-Pharyngeal Catarrh. Freudenthal, 245, Aug. 9.
Hypertropic Rhinitis and Its Sequelæ. Hayes, 245, Aug. 16.
New Apparatus for Therapeutic Applications of the Röntgen Ray to the Larynx, Tongue, etc. 280, July 12.
Late Manifestations of Hereditary Syphilis in the Nose and Throat. Anderson, 280, July 26.
Primary Epithelioma of Uvula and Soft Palate and Treatment, with Röntgen Rays. McCaw, 280, Aug. 9.
The Successful Treatment of Hay Fever. Jervey, 280, Aug. 9.
Traumatic Abscess and Necrosis of the Nasal Triangular Cartilage. Myles, Idem.
Papilloma of Larynx. Miller, 310, Aug. 16.
Examination of the Sputum. Lenhartz, 313, July-Aug.
Chronic Empyema of the Frontal, Ethmoidal, and both Sphenoidal Sinuses, with Adenoma of the Posterior Ethmoidal and Sphenoidal Regions. Bryan, 5, Sept.
Anomalous Position of the Common Carotid, Visible in the Pharynx. Wood, Idem.
Acute Empyema of Frontal Sinus; Operation; Death. Von Wild, 37, Aug.
Keratosis of the Pharynx. Richardson, 5, Oct.
Foreign Body Impacted in the Larynx. 9, Aug. 30.
Primary Malignant Tumor of the Thyroid Composed of Adenocarcinoma and Perihelial Hæmangiosarcoma. Woolley, 9, Aug. 30.
Laryngeal Symptoms Complicating a Case of Purpura Hæmorrhagica. Gibb, 9, Oct. 18.
Sarcoma of the Nares andEthmoid Cells. Gibb, 9, Nov. 1.
Some Observations on Operations for Malignant Disease of the Mouth and Neck. Crile, 29, Aug.
Pharyngitis Lateralis Hypertrophica. Baker, 29, Aug.
Polypi of the Antrum. Myles, 29, Aug.
The Rhinologist an Important Factor in the Prevention of Tuberculosis. 29, Aug.

Spasmodic Torticollis following an Adenotomy. Ingersoll, 29, Aug.
A Physiologic Statement Explanatory of Some of the Symptoms of Mouth-breathing. Ballenger, 29, Aug.
The Treatment of Laryngeal Papillomata. Roy, 29, Aug.
Report of a Case of Thyroid Gland Tumor in the Larynx. Wells, 29, Aug.
Report of an Accident with a Tracheotomy Tube. Cox, 29, Aug.
On Direct Endoscopy of the Upper Air Passages and Œsophagus in Search for and Removal of Foreign Bodies. Killian, 82, Aug. 30.
A Case of Excrescences or Deposits Low Down in the Trachea. Law, 82, Aug. 30.
Foreign Bodies in Upper Air Passages and Gullet. Discussion, 82, Aug. 30.
A Simplified Method of Operating for Deflection of the Cartilaginous Septum. Grant, 82, Aug. 30.
Chronic Laryngitis. Haring, 82, Aug. 30.
Ultimate Results of Surgical Operations upon the Frontal Sinus and Maxillary Antrum. 82, Aug. 30.
On the Operative Cure of Laryngeal Papillomata. MacDonald, 82, Aug. 30.
Moure's Operation for Deflected Septum. Pegler, 82, Aug. 30.
Present Status of the "Ozæna" Question. Grunwald, 82, Aug. 30.
Intratracheal Medication. Forsyth, 85, Oct.
Syphilis of the Nose. Scheppegrell, 139, Sept. 22.
Asphyxia and Death Caused by a Tooth in the Larynx while under an Anæsthetic. 139, Oct. 11.
Disorders of the Thyroid Gland. Belville, 141, Sept.
Epistaxis: Its Causation and Treatment. King, 155, Sept. 15.
Low Lateral Pharyngotomy, for Approach to Lower Portion of Pharynx, Upper Portion of the Oesophagus and Posterior Surface of the Larynx. Case. Bryant, 175, Oct. 18.
Diagnosis and Treatment of Malignant Stricture of the Oesophagus. Symonds, 183, Sept.
Short Hints for Examining the Oesophagus, Trachea, and Bronchi by Direct Methods. Killian, 183, Oct.
Radical Cure of Exophthalmic Goiter with the Ultimate Results in Eight Cases Treated by Thyroidectomy. Booth, 184, Sept.
Constitutional Manifestations Due to Infectious Processes of the Adenoid Structure in Children. Kyle, 215, Sept.
The Best Means of Removing Nasal Obstructions. Murphy, 215, Sept.
Epithelioma of Larynx. Knight, 215, Sept.
Diphtheria and Antitoxin. Capron, 285, Sept.

Novel Feature in the Treatment of Tubercular Laryngitis. Stillman, 215, Sept.
The Choice of an Anæsthetic for Short Operations upon the Throat and Nose. Chaldecott, 225, Sept. 13.
Nasal Obstruction and Deformities of the Upper Jaw, Teeth, and Palate. Collier, 225, Oct. 18.
The Local Pathology of Acute General Infections arising through the Lymphoid Tissue of the Fauces. Goodale, 235, Sept. 25.
Chronic Laryngeal Obstruction Due to Enlargement of the False Cords. Crandon, 235, Oct. 9.
Nasal Disturbances in Typhoid Fever and their Sequelæ. Toeplitz, 245, Sept. 20.
Results of Treatment of Laryngeal Cancer by Means of the X-Ray. Delavan, 245, Oct. 18.
Tumor of the Pharynx; an Accessory Thyroid Gland. Removal followed by Myxœdema. Shurley, 310, Sept 13.
Syphilitic Necrosis of the Nasal Cavity, Accompanied with Total Blindness. Todd, 310, Sept. 20.
Extensive Destruction of the Nasal Septum, with Involvement of the Accessory Sinuses, from Sepsis. Buvinger, 310, Oct. 11.
A Further Report upon the Treatment of Tic Douloureux by Division of the Sensory Root of the Gasserian Ganglion. Spiller, 310, Oct. 25.
Examination of Oral Secretions and Gastric and Intestinal Contents. Lenhartz, 313, Oct.
Treatment of Asthma and Paroxysmal Sneezing. Hal Foster, 185, Sept.
Uniform Nomenclature for the Turbinated Bodies. Symposium, 185, Nov.
Involution eines Rhinolaryngoscleroms durch Erysipel der Gesichtshaut und eines Sarcoms des Rachens durch Streptococcen- und Staphylococceneninfection. Hauszel, 265, Juli.
Ein Fall von Kehlkopfsarcom. Klaussner, Idem.
Ein Fremdkorperfall des nasenrachens. Kafemann, 49, B. 13, H. 2.
Ueber Angeborenen Knöchernen Choanæeinschluss. Wolff, Idem.
Zur Casuistik der Sogenannten Bluter den Septum Polypen. Reichert, Idem.
Der heutige Stand der Ozæna-frage. Grünwald, 49, B. 13, H. 2.
Beitrag zur Lehre von den Epitheliomen der Nasenschleimhaut. Citelli u. Calamida, Idem.
Subcutane Vaselininjectionen zur Verbesserung der Nasenform. Baurowicz, Idem.
Bericht aus der laryngologischen Abtheilung Pisniazek in Krakau. Nowotny, 265, Aug.-Sept.

Anwendung des Nebennierenextractes in der Therapie der Nasen-und Halskrankheiten. Goldschmidt, 265, Sept.

Fall von Otitis Media. Sinusthrombose. Doppeltem Kleinhirnabscess. Hennicke, Idem.

Un cas d'actinomycose péri-laryngée. Ripault, Idem.

Conchotom für Breitbasige Hypertrophien der Unteren Nasenmuschel. Noebel, Idem.

Sur la sécrétion salivaire de la glande sous-maxillaire du chien. Malloizel, 172, 15 Juillet.

Bégaiement dysarthrique par lésion limitée de la capsule interne. Abadie, 210, Juin.

Voix de fausset, origine et traitement respiratoires. Natier, Idem.

Note sur un cas de perforation syphilitique du palais guérie par l'uranoplastie. Monnier, 210, Juin.

Note sur un cas de lupus vulgaire du nez, guéri par le grattage et la galvano-caustie. Monnier, 210, Juin.

Abcès aigus rétro-pharyngiens au cours de la première-enfance. Pearson, 210, Juillet.

Abcès rétro-pharyngien idiopathique chez un adulte. Hopmann, Idem.

Deux cas de polypes naso-pharyngiens. Villemin, 210, Juillet.

Acné hypertrophique du nez. Baudon, 210, Juillet.

Les résultats diagnostiques et thérapeutiques obtenus par les methodes endoscopiques directes dans le cas de corps étrangers de l'œsophage et des voies respiratoires. Killian, 21, Sept.

Description abrégée de mon opération radicale sur le sinus frontal. Killian, Idem.

Etiologie et diagnostic des suppurations ethmoïdales et sphénoïdales. Grünwaldt, 21, Sept.

État actual de la question de l'ozène. Grünwaldt, 21, Sept.

De la rhinotomie sous-labiale. Galand, 21, Sept.

Nouveaux résultats de la pratique du tubage sans surveillance continué. Bèzy et Escat, 42, Juillet-Août.

De l'Incision Esthétique Rétro-auriculaire pour le Traitement de Quelques Lésions Cervicales ou Parotidiennes. Morestin, 128, 9 Sept., et 11 Sept.

Epithélioma branchial du cou. Lapeyre, 128, 16 Sept.

Traitement du tétanos. Vallas, 128, 18 Oct.

Mycosis du larynx. Localisation exclusive à la corde vocale droite. Natier, 210, Août.

Note sur le traitement des goitres simples basé sur leur origine rhinopharyngienne. Hamon, 210, Août.

Anomalies du naso-pharynx dans deux cas de suppuration nasale avec soi-disant névrose réflex. Hopmann, 210, Août.

Considérations sur la tuberculose laryngée infantile. Ferreri, 210, Sept.

Alcune modificazioni all'istrumentario d'intubazione della laringe nel crup. Valagussa, 56, vol. xiii. 2° Fas.
Richerche istologiche sulla struttura della regione ipoglottica in riguardo al punto di elezione dei tumori ipoglottici. Nardi, 57, Jugljo.
Due casi di occlusione congenita delle coane. Citelli, Idem.
Un caso di Vertigine Riflessa dal Naso. De-Carli, Idem.
Contributo Sperimentale alla Fisio-patologia della Respirazione Nasale. Rugani, 56, 3^{g}, Fasc.
Per la Casuistica dei Cosidetti Fibrocondromi Branchiali Ereditarj. Sprecher, 56, 3°, Fasc.
Serranodo Speciale per la Coda dei Cornetti Nasali. Citelli, 57, Otto.
La Tonsilla Faringea Studiate in Alcuni Mammiferi. Alagna, Idem.
Tuberculosi della Tonsilla di Luschka. Idem.
Ricerche Sperimentali sulla morte da Strozzamento Specialmente Riguardo alle lesioni della Cartilagini Laringee. Testa, 57, Otto.
Su di un caso di rinofima di straordinario sviluppo con chiazze di vitiligo alla superficie. Operazione e guarigione consecutiva. De Amicis, 131, 15 Agosto.
La tiroide nella infezione ed intossicazione sperimentale. Crispino, 132, Pun. 3^{a} e 4^{a}.
Sui Poteri Antitossici della Glandula Tiroide (Ricerche Sperimentali). Remedi, 229, Fasci. iv.
Sanguijuelas en la laringe. Laringitis agudas. Laringitis crónicas. Peláez, 333, 20 Mayo.
Consideraciones anátome-clinicas acerca de un caso de parálisis ocular asociada con hemitemblor. Salas y Vaca, 333, 5 Mayo.
Ascesso del setto nasale. De Rosa, 56, 3°, Fasc.
Un Caso de Extirpación de la Laringe con Restablecimiente de la Fonación por Cutaneización del hueco Operatorio y communicación de la Tráquea con la boca. Botey, 126, 31 Agosto.

BOOK REVIEWS.

A Text-Book of Diseases of the Eye. A Handbook of Ophthalmic Practice for Students and Practitioners. By G. E. de Schweinitz, A. M., M. D., Professor of Ophthalmology in the University of Pennsylvania, etc. Fourth Edition Revised, Enlarged, and Entirely Reset. Octavo, pp. 773, 280 text-illustrations and 6 chromo-lithographic plates. Cloth, $5.00 net; Sheep or Half Morocco, $6.00 net. W. B. Saunders & Co., Philadelphia and London, 1902.

The fourth edition of this excellent work is evidence of its popularity. Occasion has been taken to bring it up to date, rewriting many portions and adding special paragraphs for the first time upon Thompson's Lantern Test for Color Blindness, Ophthalmoscopic Signs of General Arteriosclerosis (with a colored plate which seems rather diagrammatic), Significance of Optic Neuritis, Educative Treatment of Operative Strabismus, Ocular Signs of Diseases of the Sphenoid and Antrum, Dionin, and many other interesting subjects. A number of new illustrations and 6 chromo-lithographs have been added. We are surprised and disappointed not to find any mention even of Puchhardt's operation—in our opinion the best for organic entropion. J. L. M.

Saunders' Question Compends—Essentials of Diseases of the Ear. By E. B. Gleason, S. B., M. D., Clinical Professor of Otology, Medico-Chirurgical College, Philadelphia; Surgeon in Charge of the Nose, Throat, and Ear Department of the Northern Dispensary, Philadelphia, etc. Third Edition, Thoroughly Revised. 16mo, pp. 214, 114 illustrations. Philadelphia and London, W. B. Saunders & Co., 1902. Cloth, $1.00 net.

The diagnosis and treatment of diseases of the ear have been brought down to date by a thoroughly scrupulous revision: only

such methods of treatment being included, however, that have personally proved efficacious in the majority of cases. Beside carefully revising the old text, many interpolations of new matter have been made, thus somewhat increasing the number of pages in the present edition. The comments accompanying the formulæ are an excellent feature. J. L. M.

DISEASES OF THE EYE, NOSE, THROAT, AND EAR, FOR STUDENTS AND PRACTITIONERS. By twenty-seven Authors. Edited by WILLIAM CAMPBELL POSEY, A. B., M. D., Professor of Ophthalmology in the Philadelphia Polyclinic; Surgeon to the Wills Eye Hospital; Ophthalmic Surgeon to the Howard and Epileptic Hospitals; Member of the American Ophthalmological Society, and JONATHAN WRIGHT, M. D., Attending Laryngologist to Kings County Hospital; Laryngologist to the Brooklyn Eye and Ear Hospital; Surgeon to the Manhattan Eye and Ear Hospital, Throat Department; Pathologist to the Manhattan Eye and Ear Hospital. Pp. 1238; 650 engravings and 35 plates in colors or monochrome. Lea Brothers & Co., Philadelphia & New York, 1903.

Of the 27 chapters 15 (688 pages) are devoted to the eye, 9 (386 pages) to the nose and throat, and 4 (124 pages) to the ear. The authors have been careful to avoid repetition and a general knowledge of anatomy and physiology has been presupposed. The chapter on the eye in relation to general diseases is very interesting and valuable. We fail to find any reference to paraffin injections for the relief of nasal deformity. J. L. M.

UVEITIS; SYMPOSIUM OF PAPERS READ BEFORE THE OPHTHALMOLOGICAL SECTION OF THE AMERICAN MEDICAL ASSOCIATION AT THE ANNUAL MEETING, Saratoga, N. Y., June, 1902. American Medical Association Press, Chicago, 1902. Pp. 91.

G. E. de Schweinitz, of Philadelphia wrote "Concerning the Symptomatology and Etiology of Certain Types of Uveitis"; Hiram Woods, Baltimore, an "Analysis of Thirty-seven Cases of Uveitis"; Harry Friedenwald, Baltimore, "The Diagnostic Importance of Keratitis Punctata Interna (Descemetitis)"; Howard F. Hansell, Philadelphia, "Injuries of the Eye Productive of Disease of the Uveal Tract"; William H. Wilder, Chicago, on the "Pathology of Uveitis"; Thomas A. Woodruff,

Chicago, on "The Treatment of Certain Non-specific Lesions of the Uveal Tract with Pilocarpin and Sweat Baths"; and Wilbur B. Marple, New York, "The Treatment of Uveitis"; with discussion of the seven papers at the end of the book.

A valuable monograph which we are glad to have reprinted and bound by itself. Page captions and indicating in the table of contents the page on which each paper begins would have added much to the convenience of the book for future use.

J. L. M.

SPECTACLES AND EYEGLASSES; THEIR FORMS, MOUNTING, AND PROPER ADJUSTMENT. By R. J. PHILLIPS, M. D., Ophthalmologist, Presbyterian Orphanage; Late Adjunct Professor of Diseases of the Eye, Philadelphia Polyclinic and College for Graduates in Medicine; with the mysterious "ETC." Third Edition, revised with 52 illustrations. Pp. 109. P. Blakiston's Son & Co., Philadelphia, 1902. Cloth, $1.00 net.

An excellent book that it will pay every oculist and ophthalmologist to read; too many of us are apt to content ourselves with prescribing the strength of a glass without designating anything else except whether it be for near vision, etc., and fail to direct that the patient bring his glasses for verification. It is difficult, even to-day, to convince some opticians that the distance between optical centers is important, and more so to make them tilt reading glasses sufficiently. "Text-books of refraction remain almost devoid of reference to this subject, the scant literature of which is scattered through opticians' trade publications and a few medical periodicals."

This little work, clearly and concisely written, deserves the success which is evidenced by the appearance of a third edition in seven months.

J. L. M.

UROPOIETIC DISEASES. By BUKK G. CARLETON, M. D., author of "Genito-Urinary and Venereal Diseases," "Disorders of the Sexual Organs of Men," etc. Third Edition; pp. 422, 33 photomicrographs and 7 Lucotype figures. New York, Boericke & Runyon, 1902. Cloth, $3.50.

The unexpected demand for another edition of this clearly written, thorough treatise prevented extensive alteration in the text. The author's recent experience, the lately published

opinions of others on the subject, and some little matter omitted in the second edition, are presented in chapters xxxi. and xxxii. The index has been revised, making it a thoroughly up-to-date reference book on diseases of the bladder and kidneys. In giving the treatment of the various affections the author says: "The administration of the indicated remedy should not be neglected because there is a surgical condition present." Nursing, operative, electrical, and old-school treatment are supplemented by Dr. Carleton's twenty-six years' experience with homœopathic remedies, to which much of his great success is due.

J. L. M.

DIRECTORY OF HOMŒOPATHIC PHYSICIANS IN NEW YORK AND VICINITY, 1902. Owned and edited by PHILIP COOK THOMAS, M. D., 243 West Ninety-ninth street, New York. Pp. 140. Price $1.00.

"Shepard's Directory," as it has been called for years was purchased while in press by Dr. Thomas. So the responsibility for the numerous typographical errors and misspelt names (very much more numerous than ever before) will rest with the one who edited proof.

A valuable book, once possessed always wanted; specialties are specified more generally than in any other directory within our ken.

We do not quite understand why a whole page is devoted to the officers and committees of the old-school State society—it is not indexed as an advertisement. The information about ferries would be less tantalizing if it contained the times, or at least the frequency, of running of the ferries to Blackwell's Island, College Point, and Fort Lee; are we to understand that we must be on hand at 10.30 A. M., if we wish to reach Hart's, Randall's, or Ward's Island during the day? J. L. M.

THE MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY, AND CONNECTICUT, published by the N. Y. State Medical Association, 64 Madison Avenue, New York. Volume IV., 1902–1903. Pp. 953 (although numbers appear to 982).

The best and largest volume of this indispensable work.

Of the 10,606 names of the New York State list 3948 are credited to the Borough of Manhattan and Bronx, and 1323 to

Brooklyn; 5444 reside within and 5162 without Greater New York.

Colored paper, we are glad to see, is still used to facilitate reference to the different divisions of the book. The reader is left to infer a physician's school of practice by his membership in societies and college of graduation; office hours and telephone call with the above personal information in addition to medical laws, code of ethics and data of numerous societies and institutions, make this a book that should be on every physician's desk. We wish that in addition to the above we were informed of the specialty practiced, as is done in the Transactions of the American Homœopathic Ophthalmological, Otological, and Laryngological Society. The very slight addition of space would be well warranted. A distinct division of "specialists" would add more to the practical value than does the street directory.

The publication committee should have much better support than they do: everyone connected with a society or institution should send them a correct list of its officers. Owing to a secretary ignoring this request of the publication committee, at least one society is represented by its officers of three or four years ago.

J. L. M.

THE PHYSICIAN'S VISITING LIST (Lindsay & Blakiston's) for 1903. P. Blakiston's Son and Co., 1012 Walnut street, Philadelphia. $1.00 net. "Sold by all booksellers and druggists."

This standard publication is now in its fifty-second year and is so well known that description and even commendation are superfluous.

J. L. M.

THE PUBLIC AND THE DOCTOR. By A Regular Physician. Published by Dr. B. E. Hadra, Dallas, Tex., 1902.

The writer of this pocket book of 149 pages modestly writes: "As the physician will have neither the time nor the inclination to go with everybody through a discussion of all the large and small intricacies of his profession, he may avail himself of this little book as a medium of instruction."

J. L. M.

THE NOSE AND THROAT IN MEDICAL HISTORY. By JONATHAN WRIGHT, M. D. Brooklyn, N. Y. 8vo, cloth and gold, 250 pp., 10 illustrations. Published by The Laryngoscope Co., St. Louis, Mo.

This history goes back to the year 3500 B. C. (the first mention of this subject) when a tablet was erected by King Sahura to his physician Sekhet' enanch in gratitude because he had "made his nostrils well."

The earliest mention of polypus was in 232 B. C. when Cato, the Censor of Rome, recommends the sniffing of dried wild cabbage rubbed together in the hand; this "will make them fall out."

Diphtheria under the name of "*Αφθας*" is very well described in "De Medicina" by Aulus Cornelius Celsus in the later part of the reign of Cæsar Augustus.

Although the vocal teacher Garcia is accredited as the father of the laryngoscope, we find in this careful record of literature that thirty years before Garcia experimented in auto-laryngoscopy Bozzini, in 1807, wrote a brochure upon examining the larynx, as well as some other internal cavities, with his crude instrument consisting of two parallel tubes with a mirror attached to the extremity thereof.

The book is replete with the most interesting information regarding the development of our specialty, is written in a very easy, readable style, and on the whole is a valuable little volume.

A. W. P.

WHAT A YOUNG HUSBAND OUGHT TO KNOW. By Sylvanus Stall, D. D. Pp. 300. Vir Publishing Co., 1601 Real Estate Trust Building, Philadelphia, Pa. Price, $1.00, net.

We cannot commend too highly this book to every physician; after reading it, he may be able better to advise patients who come to him with questions upon these most important subjects, and—it is quite possible—thus save a home from shipwreck. The physician who advises or countenances illicit indulgence for the sake of his patient's health should lose his license to practice!

In these pages the author lifts the sacred relations of married life out of the impure and vile thinking which have degraded

manhood, debased and debauched womanhood, and robbed marriage and home of the blessing and happiness which God intended. It ought to be read by every person of mature years, whether married or unmarried, both men and women. The author has treated the most delicate and sacred subjects with that same ennobling force which characterizes the preceding books of the series, addressed to boys and to young men. It should have a place in every library, in every school and in every home throughout the land. J. L. M.

GENERAL INDEX TO VOL. XIV.

Abeyance of Nasal Breathing, Two Cases of, 283
Acute Glaucoma, 340
—— Hoarseness of Singers and Public Speakers, 280
—— Mastoiditis—Conservatism in the Treatment of, 264
—— Sinusitis, 343
Adenoma of the Nose, 360
Adjuvants to the Drug Treatment of Diseases of the Eye. Charles Deady, 233
Adrenalin Chloride, 65
—— Have you seen Bad Effects From? 187
—— Clinical Notes on, 53
—— Danger from, in the Eye, 66
—— Its Advantages and Disadvantages, 337
Ætiology of Glaucoma, 416
American Homeopathic O., O., and L. Society, 337
—— Laryngological Association, 358
—— Rhinological and Otological Society, 301
—— Medical Association. Section on Laryngology and Otology, 343
—— Ophthalmological Society, 349
—— Otological Society, 355
Aneurism of the Internal Carotid Artery, An Interesting Case of, 262
——Anilin Oil, with Report of a Case Showing Toxic Symptoms from its use in the Ear, 124
A Résumé, 9
Aspergillar Keratitis, 66, 416
Asthenopia—The Relative Amount of, in this Country and in Europe, 105
Asthma and Paroxysmal Sneezing—The Treatment of. Hal Foster, 320
Atrophic Rhinitis, Treatment of, by Electrolysis, 125
Aural Bougies, 361
—— Vertigo, 344

Bacteria, Some of the, found in the Nose, 68
Bagby, Geo. F.—The Treatment of Ozæna, 40

Beebe, E. W.—A Consideration of the Stenopaic Slit and Pin-Hole Disc Method for Determining Pupillary Distances of Lenses, 178
Bernstein, Edward J.—Mastoiditis, 12
Bibliography, 72, 127, 207, 291, 366
Blindness from Babies' Sore Eyes, T. M. Stewart, 31
Book Reviews, 80, 144. 225, 299, 377, 446
Brain Abscess—Two Cases of, 349
British Medical Association. Section on Laryngology, 332

Campbell, James A.—Syphilitic Iritis—Belated Cases, 252
Carbolic Acid Treatment of Otitis Media Suppurativa, 64
Case of Lupus Nasi, 283
Cataract Extraction in Extremely Advanced Age, 120
—— in the Very Old, 194
—— Operation—Section of the Cornea for. E. M. Hocquard, 103
Catarrhal Deafness, Points of Necessary Prominence in the Treatment of, 362
Cavernous Sinus Thrombosis Following Grippe—Autopsy, 351
Cerebral Abscess Secondary to Otitis Media, Two Cases of, 273
—— Concussion with Retinal Changes, 120
Chronic Laryngitis; Correlation of Diagnosis and Treatment, 336
—— Nasal Obstruction, 277
—— Nasopharyngeal Bursitis, 197
—— Otitis Media Suppurativa, The Treatment of, 264
Colds, Preventative Treatment of, 338
Congenital Orbital Cyst with Microphthalmos. Report of a Case of, 350
Convergent Strabismus in Children. The Ideal Results to be Kept in View in the Operative Treatment of, 353
Converse, W. C.—Non-operative Treatment of Mastoiditis, 386
Copeland, Royal S.—Earache and Deafness in Children, 316
Cornea—Protection of the, in Some Sightless Stumps, 201
Corneal Complications in Conjunctivitis Due to the Koch-Weeks Bacillus, 202
—— Fistulæ, Persistent, 66
Corrosive Sublimate—Toxic Symptoms of, 69

Deady, Charles.—Adjuvants of the Drug Treatment of Diseases of the Eye, 233
Deafness of Middle-Ear Origin, 331
Deflection of the Cartilaginous Septum, 336
Deflections and Deformities of the Nasal Septum, Treatment of, 278
Degenerate Tonsil, 348
Delap, S. C.—Supermedication, 390

Development of the Organ of Hearing. Prophylaxis of Sinus Disease, 268
——, C. R. Holmes, 324
Diagnosis of Carcinoma of the Larynx, 265
Dionine, 329
Direct Endoscopy of the Upper Air Passages and Œsophagus, 332
Diseased Middle Turbinate, 347
Double Metastatic Carcinoma, A Case of, 351
Dowling, J. Ivimey.—Some Dangers of Iritis and Glaucoma, with Illustrative Cases, 97
——. The Ear Complications of La Grippe, 172
Dunn's Method in the Discission of Soft Cataract, 63

Earache and Deafness in Children. Royal S. Copeland, 316
Ear and Throat Complications of La Grippe, 338
—— Complications and the Sequelæ of Influenza, 328
—— of La Grippe, 189
Early Appearance, Diagnosis, and Treatment of Tuberculosis of the Upper Air Tract, 266
Ears of 1000 School Children between the Ages of Three and Sixteen Years, 289
Electric Bougie in Strictures of the Eustachian Tube, 276
Electrotherapy in Ocular Diseases, 417
Empyema of Maxillary Antrum in an Infant, 290
Empyema of the Right Maxillary, Ethmoidal, and Sphenoidal Sinuses, 59
—— Sphenoidal Sinus—Treatment of, 360
Endothelioma of the Orbit—A Case of, 349
Epithelioma of the Larynx—A Case of, 359
Epistaxis—The Treatment of. Orrin Leroy Smith, 25
Establishing True Binocular Vision by Means of the Stereoscope in the Treatment of Heterophoria, 271
Ethmoiditis, 280
Eustachian Catheterization, Some Details in, 122
Examine Diabetic Blood, 305
Examination of the Ears of 400 Children, 290
Excision of the Larynx, Six Cases of, 285
Exophoria, with Treatment, 272
Eye Disease in Tubercular Disease of the Nasal Mucous Membrane, Treatment of the Latter with Lactic Acid, 289

Faucial Tonsil and Peritonsillar Tissue, 114
Fifty Consecutive Cataract Extractions, 270
Foreign Bodies in the Upper Air Passages and Gullet, 334
—— Body Removed with Difficulty, 361
Frontal and Ethmoidal Disease, with Abscess of the Orbit, 60
Functional Tests of Hearing, 343

General Anæsthesia for the Adenoid Operation, 10
General Disease—The Pupil in, 122
Generally Unrecognized Ear Disease, A Few Remarks on a, 113
Glaucoma, Homœopathic Treatment of, 341
—— without Increase of Tension, 340

Hemorrhage after Tonsilotomy, 193
Hay Fever and Treatment, 360
——, The So-called Immunizing Treatment of, 360
Hæmorrhage following Adenotomy and Tonsilotomy. Two Usual Cases of, 288
Hocquard, E. M.—Section of the Cornea for Cataract Operation, 103
Holmes, C. R.—Development of the Organs of Hearing, 324

Immature Cataracts, Treatment of, 269
Immunization in Hay Fever, Two Years' Experience, 198
Index to Ophthalmic Literature, 415
Indications and Counter-Indications for Using Mydriatics, 273
Inflammation of the Mastoid Cells, What Means, Other than Operation, have We for Preventing and Combating, 356
Internal Ear Disease, Diagnosis of, 274
—— Remedies for Diseases of the Eye. Alton G. Warner, 248
Intercranial Complication of Middle-Ear Disease, 63
Iodid of Sodium of Potassium Collyria for Incipient Cataract, 70
Iritis and Glaucoma—Some Dangers of, with Illustrative Cases. J. Ivimey Dowling, 97
Is Iridectomy Advisable for Simple (Chronic) Glaucoma? 258
Is Tonsilectomy Preferable to Tonsilotomy? When, Why, and How do you Operate? 254

La Grippe—The Ear Complications of. J. Ivimey Dowling, 172
Lantern Demonstrations of Foreign Bodies Lodged in the Air and Food Passages, 335
Laryngeal Tuberculosis—The Effect of Climate on, with Special Reference to High Altitudes, 364
Laryngology—Retrospect in, 157
Laryngectomy, A Case of, 267
Leukoplakia, 361
Lithæmic Pharyngitis, 261
Local Drug Treatment of Eye Diseases. H. D. Schenck, 243
Lupus Nasi, A Case of, 283
Lupus of the Face, 192
Lymphoid Hypertrophy. Ætiology and Pathology. Irving Townsend, 160
—— The Relation of, to the General System, Catarrhal Preventives, 111

Lymphoid Tissue of the Upper Air Tract, Acute General Infections Originating in the, 359

Malignant Disease of the Larynx—The Use of the X-Ray in, 359
Malignant Stricture of the Œsophagus, 330
Mastoiditis—Early Treatment of, 259
——, Non-operative Treatment of. W. C. Converse, 386
Measles—The Eye Lesions Consequent upon, 112
Menthol with Ether Anæsthesia, 205
Metastatic Carcinoma of One Optic Nerve with Peculiar Degeneration of Both Nerves, 350
Middle Meatus and Middle Turbinate, 337
Multiple Angioma of the Nasal Septum, A Case of, 349
—— Cerebellar Abscess; Sigmoid Sinus Thrombosis, 117
Mydriatics (Tables by Swanzy), 36
Myopia, Prevention of, 271
—— The Full Correction of, 413
Myopic Eye—Contributions to the Anatomy of, 414

Naphthalin—The First Cataract Produced in Man by, 417
Nasal Hydrorrhœa, 126
Nasal Hydrorrhœa—Pathogenesis and Treatment, 70
—— Respiration—Air Currents in, 69
—— Synechia—The Mechanical Treatment of, with Demonstration of an Appliance, 261
—— Syphilis in a Child, and a Consideration of Nasal Tumors, 345
Non-Operative Treatment of Mastoiditis, 275

Ocular Headache. Edgar J. George, M. D., 396
Ocular Diseases Due to Pathological Nasal Conditions, 279
Oculo-Motor Paralysis. G. N. Seidlitz, 183
Ophthalmodonesis, 308
Ozæna—The Treatment of. George F. Bagby, 40

Papillomatous Excrescences or Ozænic Incrustations or Chalky Deposits, or Other Lesion low down in the Trachea, 335
Papillomatous Growths of the Soft Palate, 263
Pharynx, Unusual Foreign Body in, 68
Plastic Surgery in Ophthalmology, 281
Pooley, Thomas R.—Some Observations on Stacke's Operation, 382
Post-Nasal Adenoid Operation—General Anæsthesia for, 46
—— Adenoids; a Contributory Cause; an After-Treatment, 66
Primary Erysipelas of Throat Migrating to Face via Left Eustachian Tube and Auditory Canal, 204
—— Insertion of the Ocular Muscles, On the, 352
Prisms, On the Confusion in Methods of Using, 354

Prophylaxis of Sinus Disease, 269
Purpura with Gangrene (Dry) of the Nose, 71

Reynolds, W. U.—Stenopaic Method of Determining the Interaxial Distance, 29
Rhinoliths, 288
Rhino-pharyngeal Tonsils by the General Practitioner, Remarks Concerning the Management and Treatment of, 348

Sarcoma of the Larynx, A Case of, 358
—— of the Maxillary Sinus—Partial Excision of the Upper Jaw, A Case of, 268
—— of the Septum, A Case of, 337
Schenck, H. D.—Local Drug Treatment of Eye Diseases, 243
Schwartz-Stacke's Operation, for Chronic Suppurative Otitis Media; Re-formation of the Tympanic Membrane; Secondary Myringectomy; Improved Hearing, 114
Scleroma of the Trachea, 85
Scopolamin-Hydrobromate Reduces Increased Intra-ocular Tension, 379
Seidlitz, G. N.—Oculo-Motor Paralysis, 183
Senile Entropium Apparatus, 417
Septum Operations, A Variation in the Technique of, 206, 263
Should the Fear of Sympathetic Ophthalmia To-day Outweigh Saving with Ice and our Modern Treatment an Eye which is Wounded in the Ciliary Region? 326
Simple Glaucoma, 338
—— Operations on the Inferior Turbinate in Place of Cauterization, 196
Sinus Disease, A Case of, 114
Six Cases of Excision of the Larynx, 285
Smith, J. Whitefield.—Voluntary Nystagmus (?) 308
Smith, Orrin Leroy.—The Treatment of Epistaxis, 25
Sodium Salicylate—Blindness from, 70
Stacke's Operation—Some Observations on. Thomas R. Pooley, 382
Static Electricity Transmitted to a Distance and Several X-Ray Tubes Operated from One Machine, 201
Stenopaic Method of Determining the Interaxial Distance. Warren Uel Reynolds, 29
Stenopaic Slit and Pin-Hole Disc Method, A Consideration of the, for Determining Pupillary Distances of Lenses. E. W. Beebe, 178
Stenson's Duct, Diseases of, and the Treatment, 197
Stewart, Thomas M.—Blindness from Babies' Sore Eyes, 31
Stricture of the Eustachian Tube, Treatment of, by Means of the Electric Bougies—Thirty-three Cases, 117
—— of the Lachrymal Duct by Electrolysis, Observations upon the Treatment of, 61

Subarachnoid Injection of Cocain as a General Anæsthetic for Operations on the Head, 262
Subjective Tests vs. Cycloplegics, 273
Supermedication. S. C. Delap, 390
Supra-Orbital Reflex, 121
Surgical Operations Do Not Cure, 83
Syphilitic Iritis—Belated Cases. James A. Campbell, 252
Syphilis of Larynx, 279
Syphilis of Optic Nerve and Retina, 272, 415

Teeth as Cause of Pathologic Conditions in the Throat, Nose, and Ear, 264
Tertiary Syphilis of the Larynx, 418
Test Proving, 231
Thiosinamin in Ear Diseases, 329
Thrombosis of the Sigmoid Sinus in Connection with Ear Disease, 195
Tonsils, the, as Portals of Infection, 124
Toxic Rhinitis, 198
Townsend, Irving, Lymphoid Hypertrophy. Ætiology and Pathology, 160
Transillumination of the Accessory Sinuses in Acute Coryza, 345
Trauma in Relation to Exfoliation of the Adult Labyrinth, 355
Tuberculous Otitis Media, Mastoiditis, and Meningitis in an Otherwise Apparently Healthy Adult, 113
Tumor of Optic Nerve Sheath Removed by Krönlein's Method, 203
Tumor of the Pharynx, 358
Two Cases of Abeyance of Nasal Breathing—Nasal Passages Free, 283
—— Ulcerative Tonsilitis with Unusual Sequelæ, 284
—— Unusual Cases of Hæmorrhage Following Adenotomy and Tonsilotomy, 288
Tympanic Vertigo Due to Obstruction of the Eustachian Tube, 198

Ulcerative Tonsilitis with Unusual Sequelæ, Two Cases of, 284
Uniform Nomenclature for the Turbinated Bodies, 401

Vocal Nodules, 125
Voluntary Nystagmus (?). J. Whitefield Smith, 308
Von Schroetter, Herman.—Contribution to the Study of Scleroma of the Trachea, 85

Warner, Alton G.—Internal Remedies for Diseases of the Eye, 248

X-Rays Cause Conjunctivitis and Rhinitis, 65